# 2021 REAPPRAISAL
# SCHEDULES OF RULES, STANDARDS AND VALUES FOR MARKET VALUE AND PRESENT-USE VALUE

## ORANGE COUNTY, NORTH CAROLINA

Presented by:
Nancy T. Freeman
Orange County Tax Administrator

Submitted to the:

# ORANGE COUNTY
# BOARD OF COMMISSIONERS

Penny Rich, Chair

Renee Price, Vice Chair

Jamezetta Bedford, Commissioner

Mark Dorosin, Commissioner

Sally Greene, Commissioner

Mark Marcoplos, Commissioner

Earl McKee, Commissioner

ADOPTED

_____

Date

Signed: _____

Chair, Orange County Board of Commissioners

# ACKNOWLEDGEMENTS

The Orange County Tax Office gratefully acknowledges the following organizations and corporations, and individuals for their assistance in preparation for this manual:

INTERNATIONAL ASSOCIATION OF ASSESSING OFFICERS

NC DEPARTMENT OF REVENUE, PROPERTY TAX DIVISION

THE APPRAISAL FOUNDATION

MARSHALL AND SWIFT VALUATION SERVICE

Staff contributing to the writing, editing, and assembly of the
Orange County Reappraisal manual include:

Chad Phillips, PPS – Deputy Tax Assessor

Roger Gunn – Real Property Appraisal Manager

Kelly Wells – Chief Appraiser

Eric Taylor – Systems Analyst

Nancy T. Freeman – Tax Administrator

**TABLE OF CONTENTS**

## Introduction

Orange County, like all other North Carolina counties, faces the continuous and challenging task of determining fair and equitable assessments of properties which are subject to ad valorem tax within its jurisdiction. The applicable statutes of our State require that a reappraisal be conducted at least once every eight years, but permits more frequent general reappraisals when it is necessary to maintain equitable assessments. The primary objective is to maintain an equitable tax base among all taxpayers.

The economic principal of change has a constant effect upon the properties which are subject to ad valorem taxation, although the effect is not the same on all properties. The effects of change such as inflation, appreciation, depreciation, deterioration, and improvement must be frequently recognized in order to produce equitable assessments.

To accomplish the goal of determining just and equitable values the assessor must turn to mass appraisal methods and techniques based on appraisal principles. In mass appraising, as in any kind of appraising, the realities of the local market along with state and local laws must be considered. Also, fundamental to any mass appraisal system are knowledge, judgment and the ability to adapt a standardized system to the local market. A standardized system and method of handling both data and the application of the three basic approaches to value is necessary to achieve uniformity in the valuation process.

The three basic approaches that may be used to arrive at a fair market value are summarized as follows:

COST APPROACH
This approach consists of estimating the land value and the depreciated cost of the improvements to arrive at a value. Theoretically, the substitution principle is the basis for determining the maximum value of the property by this approach. The substitution principle assumes the value is equal to the cost of acquiring a substitution of equal utility assuming no cost delay is encountered.

MARKET APPROACH
This approach utilizes the application of prior sales data from the market and is also referred to as the sales comparison approach. Use of this approach requires that the sales used be analyzed to determine that the conditions of market value have been met.

INCOME APPROACH
The two most common applications of this approach in mass appraising are the capitalized net income and the gross rent multiplier. In this approach the income generated from the property is used to estimate its market value.

The use of any of the three approaches requires careful consideration to be given to:

1. The relevancy of the approach applied to the property under consideration.
2. The inherent strengths and weaknesses of the approach used.
3. The amount and reliability of the data collected.
4. The effect of the local market on the data collected.

Reappraisals are dependent on data and the expertise to analyze and interpret that data. Under the guidance of the North Carolina Department of Revenue's Property Tax Division we have expanded our use of the Assessment/Sales Ratio Reports. From a randomly-selected base of arm's-length sales, a comparison

is made between the actual sales price of a series of property transactions and their respective assessed values.

The 2021 reappraisal holds unique challenges brought about by the Covid-19 Pandemic and the efforts in the county, state, and nation to provide for the health, safety, and welfare of residents and visitors. It is worthwhile to note that the Orange County Tax Assessor and Assessment Staff are working with professional appraisal companies, and collaborating with other County Assessors, staff from the North Carolina Department of Revenue's Property Tax Division, and staff from the UNC School of Government to share and analyze data to provide the most accurate and up-to-date reappraisal.

All appraisals are under the jurisdiction of the Uniform Standards of Professional Appraisal Practice (USPAP), the relevant portions of which have been included in the Addendum, and which by reference are hereby made a part of this proposed set of Schedules, Standards, and Rules.

The Orange County reappraisal will be effective as of January 1, 2021. Due to the current nature of the market, we will continue to collect market data through December 31, 2020. By ruling of the North Carolina Appellate Courts, sales occurring after January 1, 2021 are not to be considered for valuations established on January 1, 2021. The schedules presented will allow for us to continue to examine the market with the latest available activity occurring in calendar year 2020 and by so doing, permit us to be as accurate and up-to-date as the data will allow.
Respectfully submitted,

Nancy T. Freeman
Orange County Tax Administrator

# PROPERTY AND VALUE

**CONCEPTS OF PROPERTY AND PROPERTY RIGHTS**

Before an assessor can undertake his or her responsibilities and duties properly, he or she must be familiar with the legal framework in which the function is performed. In addition to the specific statutory direction and appellate court rulings, it is necessary to be well-versed with the nature of appraised values and property and with the basic economic principles that serve as the foundation of the valuation process.

A discussion of property and property rights should begin with a definition of property. When the one thinks of property, he or she tends to think of a thing. Legally, however, property is associated with the *right* of any person to possess, use, enjoy, and dispose of a thing. Property, then, is a broad term expressing the relationship between owners and their rights in and to possessions. In appraising real property, the parcel to be appraised includes the rights inherent in the ownership of the property be included in the opinion of value rendered by the reappraisal.

All property may be divided into two major categories-real property and personal property. Real property is defined as the sum of the tangible and intangible rights in land and improvements. It refers to the interest, benefits, and rights inherent in the ownership of physical real estate. A synonym for real property is realty. Real estate, on the other hand, is the physical land and everything permanently attached to it. Personal property consists of movable items not permanently affixed to, or part of, the real estate and is commonly known as “personalty" or "chattels".

Real estate may be divided into two categories: land and improvements. Land may be defined as the surface of the earth together with everything under its boundary and everything over it, extending indefinitely. The shape of a parcel of land can be described as an inverted pyramid with its apex at the center of the earth and extending upward through the surface into space. Certain legal limitations have been imposed throughout the years by the Courts, such as the right of aircraft to fly over the land. Improvements (land improvements, such as paving, fencing, structures, and landscaping) consist of immovable items affixed to and becoming part of the real estate. "Permanently affixed" refers to the original intent of the owner and the economic life of the improvements rather than forever.

In discussing the distinction between real estate and personal property, the term “affixed” was used. Defining “fixture” has been the subject of much litigation, and the courts do not always agree. Generally speaking, personal property affixed to land is called a fixture. Chattels that have been affixed to land are called fixtures.

Chattels that have been affixed to the land so as to lose their character as chattels become real estate for ad valorem tax purposes. In determining the nature of the annexation of personal property, there are two basic considerations: first, the adaptability of the personal property to the use of that part of the realty and, second, the person by whom the annexation is made and his interest in the land and the personal property.

Courts tend to agree that, if the chattel is affixed to the land so that it loses its original physical character and cannot be restored to its original condition as a practical matter then it loses its nature as personal property and becomes real property. In some cases there are two basic tests to determine whether personal property becomes real property (1) the intention of the person who put the item in its place and (2) whether the item

may be removed from the real estate without damaging either the item or the real estate.[1] An excellent example is in how NC law distinguishes manufactured homes as personal versus real property.

N.C.G.S. 105-273(13)b. reads:

"Real property, real estate, or land. – Any of the following:

a. The land itself.
b. Buildings, structures, improvements, or permanent fixtures on land.
c. All rights and privileges belonging or in any way appertaining to the property.
d. A manufactured home as defined in G.S. 143-143.9(6), unless it is considered tangible personal property for failure to meet all of the following requirements:
    1. It is a residential structure.
    2. It has the moving hitch, wheels, and axles removed.
    3. It is placed upon a permanent foundation either on land owned by the owner of the manufactured home or on land in which the owner of the manufactured home has a leasehold interest pursuant to a lease with a primary term of at least 20 years and the lease expressly provides for disposition of the manufactured home upon termination of the lease."

Another important distinction in property is that of tangible and intangible property. Tangible property consists of actual physical property. Intangible property is evidence of ownership of property rights. Examples of intangible property are patent rights, copyrights, notes, mortgages, deeds of trust, and stock certificates.

**OWNERSHIP OF PROPERTY**

There are six basic rights associated with the ownership of property:

1. The right to use.
2. The right to sell.
3. The right to lease or rent.
4. The right to enter or leave (real property).
5. The right to give away.
6. The right to refuse to do any of these.

These rights are known as the "bundle of rights", which is the ownership of all the legal rights obtained with fee-simple title. The bundle of rights may be compared to a bundle of sticks, each representing one property right. Property rights are divisible. Property ownership is sometimes transferred without the exchange of the full bundle of rights.

Unless property is owned by the government, it is subject to certain public and possibly private restrictions. The United States and other nations impose certain limitations for the common good. These public, or legal,

[1] For example, if a tenant places a screen in front of a fireplace, there is no intent of permanent installation, and the screen can be easily removed when the tenant leaves, the screen is therefore personal property. However, if a property owner installs a light switch in the wall, the wall would be damaged by its removal. The light switch is considered part of the real estate. In more difficult cases involving this question, state statutes and court decisions should be the reference sources.

restrictions thrust limitations on the full bundle of rights. The bundle of rights is further restricted by governmental control, identified as follows:

- Taxation - right to tax property for support of the government.
- Eminent domain - right to take property for public use for "just compensation".
- Police power - right to regulate the use of property for public welfare in the areas of safety, health, morals, zoning, building codes, and traffic and sanitary regulations.
- Escheat - right to have property revert to the State for nonpayment of taxes or where there are no legal heirs of a decedent who dies intestate.

Some examples of private limitations which affect fee-simple ownership of property are (1) the rights of other co-owners of the property; (2) covenants, conditions, and restrictions that are found in the chain of title to the property; (3) mortgages (a mortgage is a written instrument pledging specified real estate as a guarantee for the repayment of a loan used to purchase property); (4) easements and rights of way (an easement is a right held by one person to use the land of another); (5) liens and judgments (a lien is a legal right to hold property or to have it sold or applied for a payment of a claim); and (6) leases.

**Estates in Property**

An "estate" may be defined as the legal position or status of an owner with respect to the property and the degree or quantity of interest owned with respect to the nature of the right, its duration, or its relation to the rights of others. Estates in real property may be categorized according to the quality and duration of the property rights. The two main divisions in estates are freehold and non-freehold. A freehold estate is one which is to endure for an uncertain period of time but which usually lasts during the life of some person. Non-freehold estates endure for a specified period of time and may be subject to immediate termination. There are three basic types of freehold estates: fee simple absolute, leased fee, and life estates.

An "estate in fee simple" is one which has been given to an individual, and his heirs without any end or limit put to his estate. Fee-simple title is the greatest possible degree of ownership. It is title free and clear of all encumbrances, including easements, rights of way, liens, and so forth. In other words, it is the ownership of all legal rights. With certain statutory exceptions, fee-simple title is the only estate which the assessor values. Personal property is always valued by the assessor as free and clear of all encumbrances.

N.C.G.S. 105-302 sets forth the statutory direction regarding in whose name real property should be listed. In North Carolina, the property will be listed, appraised, and assessed at "fee simple" to the holder of the life estate, usually referred to as the "life tenant". A life estate is granted with ownership limited to the life of the owner or that of another party.

G.S. 105-302 (c)(8) reads:

> **"A life tenant or tenant for the life of another shall be considered the owner of real property, and it shall be his duty to list the property for taxation, indicating on the abstract that he is a life tenant or tenant for the life of another named individual."**

Estates in real property may also be categorized according to the way in which title is held: tenancy in severalty indicates ownership interest by one owner; tenancy in common indicates ownership by more than one person where the interest is not divided and descends individually to each owner's heirs; tenancy by the entirety indicates joint ownership by husband and wife where ownership reverts to the survivor and cannot a disposed of individually during the lifetime of either. There are many different types of tenancy in which the assessor is interested primarily for the purpose of keeping ownership records up to date. Ultimately, North Carolina General Statutes control how ownership of all real property is determined for ad valorem tax purposes.

**NATURE OF PROPERTY APPRAISAL AND VALUE**

The word "value" is an abstract word; generic in nature, with many acceptable definitions and meanings, the term defying an exact definition to suit all circumstances. Generally speaking, its definition is largely dependent upon the context in which it is being used. In a broad sense, value can be defined as the relationship between an object desired and a potential purchaser. It is the ability of a commodity to command another commodity (money) in exchange. For purposes of real property appraisal, value may be described as the present worth of future benefits arising from the ownership of real property.

A major distinction must be made between value in use and value in exchange. A property may have relatively little value in use and a significantly different value in exchange. Value in use embodies the objective premise, which maintains that value is within the object itself. A hose rack built into a fire station is a useful and valuable item as long as the building is used as a fire station. If use as a fire station is abandoned, however, the hose rack probably will not add value to the property unless it can be used for an almost identical purpose. Under the concept of value in exchange, the subjective element is accentuated. In a subjective context, value is within the mind of man. For example, meat is valuable only if hunger exists; stated differently, meat is desirable and therefore valuable because it satisfies hunger when and if hunger exists. The value-in-use concept easily accommodates cost. In an economic sense, value in exchange is the primary concern for the assessor because this value – market value – reflects the actions and reactions of buyers, sellers, and investors.

In order for property to have value, there must be desirability, utility, scarcity, and economic purchasing power. Utility is the capacity of goods to excite desire for possession and should not be confused with usefulness. Diamonds possess utility in that they excite a desire for possession in the minds of most people and usefulness in that they are the hardest substance known and have many industrial uses. Utility is a subjective concept, in the mind of man; usefulness is an objective concept, inherent in the property.

Scarcity is the third requirement for value. The air we breathe has utility, but it is not valuable, primarily because it is not scarce. There are two economic forces that determine scarcity: supply and demand. As demand increases or supply decreases, the value of the goods will increase. Conversely, if the supply increases or the demand decreases, the value of the goods will decrease

Utility and scarcity by themselves do not confer value on an object, unless the desire by the purchaser is present, a desire backed by the economic purchasing power of the buyer(s).

A comparison of the terms "cost" and "price" is useful in a discussion of value. Cost may be defined as the sacrifice made in the acquisition of property and commonly reflects the perspective of the buyer. It may be

incurred in either the purchase of an existing property or the construction of a new property. Price may be defined as the amount of money given or expected or arrived at arranging for the exchange of property. Cost and price may be the same. If a purchaser pays $100,000 to buy a property, it may be stated that the property costs the purchaser $100,000. However, while price is defined in terms of money, cost is expressed as a sacrifice. A sacrifice may be in terms of money, labor, or time. Also, when a property is sold, the price may be either above or below the owner's cost.

# MARKET VALUE AND SALES UTILIZATION

**UNIFORM APPRAISAL STANDARD**

While the term "value" remains quite difficult to define, the term "market value" does not suffer from the same limitation. The constitutions and statutes of the 50 states have different definitions of market value; they also have different definitions of value for property taxation, eminent domain, corporate reorganization, and public utility rate regulation. The assessor must adhere to the definition of market value as stated in N.C.G.S. 105-283 and as interpreted in various decisions rendered by the North Carolina Appellate Courts, as set forth below:

N.C.G.S. 105-283. Uniform Appraisal Standard.

> **"All property, real and personal, shall as far as practicable be appraised or valued at its true value in money. When used in this Subchapter, the words "true value" shall be interpreted as meaning market value, that is, the price estimated in terms of money at which the property would change hands between a willing and financially able buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of all the uses to which the property is adapted and for which it is capable of being used. For the purposes of this section, the acquisition of an interest in land by an entity having the power of eminent domain with respect to the interest acquired shall not be considered competent evidence of the true value in money of comparable land."**

NOTE: In analyzing sales of property, close attention is paid to identifying all transactions that are the result of a foreclosure or short sale. Such sales are not retained for further consideration in determining the schedules set out elsewhere in this document, and neither will they be considered in analyzing the reappraisal results via the State-mandated assessment/sales ratio study.[2]

Several Appellate Court cases have addressed the issue of defining market value:

- Neither this section nor G.S. 105-317(a) requires the commission to value property according to its sales price in a recent arm's length transaction when competent evidence of a different value is presented. In re *Greensboro Office Partnership,* 72 N.C.App. 635, 325 S.E.2d 24, cert. denied, 313 N.C. 602, 330 S.E.2d 610 (1985).

- The purpose of the statutory requirement that all property be appraised at its true value in money is to assure, as far as practicable, a distribution of the burden of taxation in proportion to the true values of the respective taxpayers' property holdings, whether they be rural or urban. In re *King*, 281 N.C. 533, 189 S.E.d 158 (1972).

- In substance, this section and G.S. 105-317.1 provide that all property shall be appraised at market value, and that all the various factors which enter into the market value of property are to be considered by the assessors in determining this market value for tax purposes. In re *Bosley,* 29 N.C.App. 468, 224 S.E.2d 686, cert. denied, 290 N.C. 551, 226 S.E.2d 509 (1976).

[2] For a complete list of conditions (in addition to foreclosure and short sales), that the NC Department of Revenue distributes to all 100 NC counties to be used in determining whether a particular sale is qualified or disqualified, please refer to the Addendum, Document 1.

- Where sale was not between a willing buyer and a willing seller, as contemplated by this section, sales price was not indicative of property's true value. In re *Phoenix Ltd. Partnership,* 134 N.C. App. 474, 517 S.E.2d 903 (1999)

- Section 105-317(a), in fixing the guide which assessors must use in valuing property for taxes, includes as a factor the past income therefrom, and its probable future income. But the income referred to is not necessarily actual income. The language is sufficient to include the income which could be obtained by the proper and efficient use of the property. To hold otherwise would be to penalize the competent and diligent and to reward the incompetent or indolent.
  In re *Greensboro Office Partnership,* 72 N.C.App. 635, 325 S.E.2d 24, cert. denied, 313 N.C. 602, 330 S.E.2d 610 (1985).

- To find the true value of property subject to conservation easements, the Commission must determine the market value prior to the granting of the easements and then reduce that value by applying a damage factor caused by the granting of the conservation easements. Determining the highest and best use of the property prior to the granting of the easement is a critical part of the appraisal process. In re *Rainbow Springs Partnership v. County of Macon,* 79 N.C. App. 335, 339 S.E.2d 681, cert. denied, 316 N.C. 736, 345 S.E.2d 392 (1986).

- A post-octennial valuation sale is not a statutory permissive basis for adjusting a property's tax valuation. In re *Allred,* 351 N.C. 1, 519 S.E.2d 52 (1999)

- State Tax Commission's reliance upon an independent appraiser's collateral determination of petitioners' property value, without challenge or correlation to the county's schedules of value or the application of those schedules to the property, was in violation of the statutory requirement of this section that any permissible increase or decrease in the appraised value of real property be calculated using the schedules and standards established by the county. In re *Allred,* 351 N.C. 1, 519 S.E.2d 52 (1999)

- In order for a taxpayer to have valuation set aside, he must show more than a failure to follow statutory procedures. It is not enough for the taxpayer to show that the means adopted by the tax supervisor were wrong; he must also show that the result arrived at is substantially greater than the true value in money of the property assessed, i.e., that the valuation was unreasonably high. In re *Highlands Dev. Corp.,* 80 N.C. App. 544, 342 S.E.2d 588 (1986).

Other General Legal References that bear on the Concept of Value:

- The North Carolina General Assembly determines how property in this State should be valued for purposes of ad valorem taxation. In re *Amp, Inc.,* 287 N.C. 547, 215 S.E.2d 752 (1975).

- The legislature has decreed that all property, real and personal, within the jurisdiction of the State, is subject to taxation whether owned by a resident or a nonresident. The purpose of this strong decree is to treat all property owners equally so that the tax burden will be shared proportionately, and to gather in all the tax money to which the various counties and municipalities are entitled. In re *Plushbottom & Peabody, Ltd.,* 51 N.C. App. 285, 276 S.E.2d 505, cert. denied, 303 N.C. 314, 281 S.E.2d 653 (1981).

- Uniformity in taxation relates to equality in the burden of the State's taxpayers. In re *Martin*, 286 N.C. 66, 209 S.E.2d 766 (1974).

- Ad valorem tax assessments are presumed to be correct, and when such assessments are challenged, the burden of proof is on the taxpayer to show that the assessment was erroneous. In re *Bosley,* 29 N.C.App. 468, 224 S.E.2d 686, cert. denied, 290 N.C. 551, 226 S.E.2d 509 (1976).

- Ad valorem tax assessments are presumed correct. In order to rebut this presumption, the taxpayer must present evidence to show that an arbitrary method of valuation was used, or that an illegal method of valuation was used and that the assessment substantially exceeded the true value in money of the property. In re *Interstate Income Fund I,* 126 N.C. App. 162, 484 S.E.2d 450 (1997).

- In order to obtain relief from valuations upon their property by the State Board of Assessment, appellant electric membership corporations must show that the methods used in determining true value were illegal and arbitrary, and that appellants were substantially injured by a resulting excessive valuation of their property. In re *Albemarle Elec. Membership Corp. v. Alexander,* 282 N.C. 402, 192 S.E.2d 811 (1972).

- Burden is on the taxpayer to show that it comes within the exemption or exception. In re *Martin*, 286 N.C. 66, 209 S.E.2d 766 (1974).

- Exemption from taxation is exceptional. Such exemptions should be strictly construed. In re *Notice of Attachment & Garnishment Issued by Catawba County Tax Collector*, 59 N.C. App. 332, 296 S.E.2d 499 (1982), cert. denied, 307 N.C. 576, 299 S.E.2d 645 (1983).

The following important points regarding market value should be noted:

- It is the most probable price.
- It is not the highest, lowest, or average price.
- It is expressed in terms of money.
- It implies a reasonable time for exposure to the market.
- It implies that both buyer and seller are well-informed of the uses to which the property may be put. It requires an arm's length transaction in the open market.
- It requires a willing buyer and willing seller, with no advantage being taken by either buyer or seller. This is a constraint against consideration of foreclosures and short sales.
- It recognizes the present use as well as the potential use of the property.

**HIGHEST AND BEST USE**

The way in which property is used, or could be used, plays an essential role in determining its market value. Most appraisal organizations recognize the highest and best use of a given property must conform to the following four points:

- It must be a legal use (in many instances zoning will identify the legal use)
- It must be a physically possible use
- It must be an economically feasible use, and
- It must be the use that generates the greatest net return to the owner.

Almost all property is subject to competing uses. Rural land is subject to the competition of farming and grazing. Urban land is subject to many competing uses; a single parcel of land may be sought after as the site for a store, gas station, apartment building, or office building. When determining an opinion of market value, it is necessary to determine which of the competing uses is the highest and best use.

Highest and best use may be defined as that use which will generate the highest net return to the property over a period of time. Further amplification of this definition is necessary for a clear understanding of the term.

The highest and best use must be a legal use. This means not only that the use cannot be criminal but also that it must be permitted under local administrative regulations, such as zoning. Assuming that zoning regulations are strictly enforced, the highest and best use may be limited. If it is easy to obtain a change or variance in zoning, uses not permitted by current regulations must be considered along with the probability that zoning will be changed. The use also must not be prohibited by enforceable restrictions contained in the chain of title to the property.

The use must be a probable use and not a highly unlikely or speculative one. There must be a demand for the use either in the present or in the near future. This, of course, is determined by persons in the market and not by a bias on the part of the assessor. It is important to consider as well that the highest and best use *may* be the present use or an entirely different one. It may even be a combination of uses over a period of time. Imagine, for example, a site in a good downtown location on which stands a three-story store with a 75 percent vacancy factor. Assume that the site could be developed with a modern fifteen-story office building. However, since there is currently too much unrented office space on the market, the highest and best use of the property might be as a parking lot for the next five years. Once the excess office space is absorbed, its highest and best use could be as an office building.

The highest and best use will be a complementary rather than a competitive use. For example, if there are gas stations on three of four corners, a fourth gas station will reduce the customers that are available to all four stations. However, suppose that on the fourth corner a fast-food restaurant were established. The restaurant would draw business from the gas station customers. Conversely, the gas stations would draw business from the restaurant's customers.

The highest and best use must be the most profitable for the entire property, land, buildings, and other improvements-since the market deals with the total property unit and land and buildings usually are not sold separately. Also, when estimating highest and best use, the assessor should not combine parcels of common ownership that are used independently for different purposes.

The highest and best use generates the highest net return over a reasonable period of time. A use that yields a very high immediate income but one of short duration may not be as valuable as a use that results in a lower but more prolonged income stream. Just as everything changes with time, the highest and best use of property will change. The character of a neighborhood may be altered, thereby creating demands for different uses. The assessor periodically reviews conclusions as to highest and best use and revises them according to the data that are collected.

Properties in transition present a difficult appraisal problem. Not only must a new highest and best use be found for the property, but also an estimate must be made as to when the property will begin the new use. Occasionally, there will be an interim use prior to the future highest and best use. In order to estimate the value of these consecutive uses, the benefits must be identified, valued, and summed. The total value is the sum of:

1. The present worth of the income stream from the interim use for the period of that use less the cost of erecting interim improvements.
2. The present worth of the salvage value of the interim improvements less the present worth of removing them.
3. The present worth of the income stream from the future use less the present worth of erecting the future improvements.

For example, assume that a vacant parcel of land downtown has a highest and best use as a parking lot for five years and as a twenty-five-story office building thereafter. The sum of the future benefits is shown as pluses and minuses in the following example:

*Pluses*

1. Present worth of parking-lot income for five years,
2. Present worth of salvage value of parking-lot improvements deferred five years,
3. Present worth of sixty-year income stream from twenty-five-story office building deferred six years (one year for construction)

*Minus*

1. Cost of erecting parking-lot improvements: paving, fencing, and small office.
2. Present worth of cost to demolish parking-lot improvements deferred five years.
3. Present worth of cost to construct a 25-story office building deferred six years.

**BASIC PRINCIPLES OF VALUE**

These principles, which have evolved from economic doctrine, are generally accepted as having a direct effect on the modern concept of value. It should be emphasized that these principles rarely if ever can be considered in isolation; it is typical to conceive of them in an interrelated setting, for they tend to complement and accompany one another. It should also be pointed out that highest and best use is the resulting use after considering the interrelationship among the basic appraisal principles.

The following are generally regarded as essential to the understanding of the appraisal function. They are listed (in alphabetical order) as follows:

**Principle of Anticipation**

Market value is the present worth of all the anticipated future benefits to be derived from the property. The benefits may be in the form of an income stream or amenities. Anticipated future benefits are those benefits anticipated by the market. The assessor should not allow personal opinion to influence the determination of anticipated future benefits. Past sales of the property and past income are of importance only when they are an indication of what may be expected in the future. The principle of anticipation works in conjunction with the principle of change.

**Principle of Balance**

The principle of balance has dual significance. When applied to an individual property, the principle states that maximum market value is reached when the four agents of production: labor, coordination or management, capital, and land attain a state of equilibrium. In the case of individual properties, the principle works in conjunction with the principles of contribution, increasing and decreasing returns, and surplus productivity. When applied to a neighborhood, the principle of balance indicates that maximum market value is reached when the complementary uses of land attain equilibrium. For example, a single-family residential neighborhood requires commercial facilities such as grocery stores, gasoline stations, drugstores, and so forth. It also needs residential support facilities such as churches, schools, recreational facilities, and the like. When these complementary uses are in balance, the individual properties (and the neighborhood) achieve maximum market value. When the principle of balance is applied to a neighborhood, it works in conjunction with the principle of competition.

**Principle of Change**

This principle states that market value is never constant, because economic, social, and governmental forces are at work to change the property and its environment. In addition, property itself is constantly changing. For example, the forces of nature can change the quality of the soil, and improvements change by aging. Because change is continuous, the estimate of market value is valid only on the effective day for which it is made. The principle of change works in conjunction with the principle of anticipation.

**Principle of Competition**

The principle states that when substantial profits are being made, competition is created. This leads to the aphorism that profit tends to breed competition and that excess profit breeds ruinous competition. A neighborhood can support only a certain number of bowling lanes, department stores, gasoline service stations, and shopping centers. An excess of any one type of facility will tend to decrease the value of most, if not all, other such facilities.

**Principle of Conformity**

This principle states that maximum market value is reached when a reasonable degree of economic and social homogeneity is expected in the foreseeable future. When the principle is applied to improvements, reasonable homogeneity implies reasonable similarity, not monotonous uniformity. When it is applied to the residents, it means similarity in age, income, background, education, attitudes, and so on. Conformity works in conjunction with the principles of progression and regression and is essential in understanding the neighborhood concept as a mass appraisal technique.

**Principle of Consistent Use**

This principle states that the property must be valued with a single use for the entire property. It is improper to value a property on the basis on one use for the land and another use for the improvements. This is not to say that consecutive uses for the entire property would violate the principle of consistent use. The principle of consistent use is especially applicable to a property in transition from one use to another. While the improvements on a parcel ready for a higher use may theoretically have a long physical life, their economic life may have already terminated. In this case the improvements may have a negative value, namely, the cost of demolition.

**Principle of Contribution**

This principle states that the value of an agent of production (or a property component) depends upon its contribution to the whole. This is another way of saying that cost does not necessarily equal value. Some examples are:

1. Cost does not always equal value. Ten thousand dollars is spent on labor, (which is a cost), to build a two-car garage. What has the $10,000 worth of labor contributed to the value of the property – less than $10,000, $10,000 or more than $10,000?
2. The real estate market tends to look at the contribution of a property characteristic in broad terms. While there can be significant cost differences between a stucco chimney and a very plain fireplace profile versus a stone chimney and fireplace profile, that difference in cost may very likely not be likewise reflected in the value of the two homes located in the same neighborhood with the very different chimneys and fireplaces.
3. An owner spends $20,500 to erect a garage for use with the home. Based on a hypothetical comparable sales analysis, it is determined that such a garage adds $21,500 to the overall market value of the property. In this case $21,500 is the value contribution of the garage.
4. In the case of income-producing properties, the value of an agent in production (or property component) ran be measured by the amount it contributes to net income, since net income can be capitalized into value. For example, assume that the owner of a small retail store finds that, by spending $2,000 for an air-conditioning unit, annual gross income from rents can be increased by $650. Additional operating expense due to the air-conditioning unit will be only $400, including amortization of the investment. Consequently, installation of this unit will add value to this property in excess of its cost. If the additional annual income were less than $400, the expense would not be practical.

This principle is the basis for the adjustment process of the comparative sales approach to value and the direct sales comparison method of land valuation, for determining whether physical deterioration and functional obsolescence are curable or incurable, and for justifying remodeling and modernization. Many of the adjustments to value that are detailed herein for various property characteristics, are based on their contribution to the whole property, not their actual cost.

The principle of contribution works in conjunction with the principles of balance, increasing and decreasing returns, and surplus productivity.

**Principle of Increasing and Decreasing Returns**

This principle states that when successive increments of one agent of production are added to fixed amounts of other agents, future net benefits (income or amenities) will increase up to a certain point (point of decreasing returns), after which successive increments will decrease future net benefits. For example, assume a number of hypothetical buildings, each constructed on the same site:

A 10,000 square foot building that can earn 1.4 percent on its cost;
A 20,000 square foot building that can earn 5.5 percent on its cost;
A 30,000 square foot building that can earn 8.0 percent on its cost;
A 40,000 square foot building that can earn 5.8 percent on its cost;
A 50,000 square foot building that can earn 1.2 percent on its cost.

In this illustration, constructing larger buildings will produce increasing returns up to the point of a 30,000 square foot building. Beyond this point, additional investment to construct a larger building starts to contribute

to diminishing returns. The principle of increasing and decreasing returns works in conjunction with the principles of balance, contribution, and surplus productivity.

**Principles of Progression and Regression**

Progression indicates that the value of a lesser object is enhanced by association with better objects of the same type. For example, a $72,000 house among $125,000 homes may bring a higher price in the market. The principle of regression states that when there are dissimilar properties within the same general classification and in the same area, the better property will be adversely affected. Thus, when a $150,000 house is located in an area where the typical home is in the $75,000 category, the market value of the former will tend to fall. The $150,000 house, in this example, is an over-improvement for the neighborhood. The principles of progression and regression work in conjunction with the principle of conformity. This principle is sometimes referred to as the "hydraulic principle" – all waters tend to seek the same level – whereas comparable properties within a given neighborhood tend to seek a common market level.

**Principle of Substitution**

A property's market value tends to be set by the cost of acquiring an equally desirable and valuable substitute property, assuming that no costly delay is encountered in making the substitution. This principle serves as the basis of the three approaches to value-cost, comparative sales, and income.

**Principle of Supply and Demand**

This principle states that market value is determined by the interaction of the forces of supply and demand. A sudden increase in the population of an area would increase demand. If, at the same time, mortgage interest rates rose sharply, demand might lessen.

**Principle of Surplus Productivity**

This principle states that the net income remaining after the cost of the agents of production-labor, coordination, and capital has been paid is considered surplus productivity. The surplus productivity is the income earned by or attributable to the land. The agents in production must be satisfied in the following order: labor (wages), coordination (management), capital (improvements), and land. As a result, land value tends to be set by the cost of labor, coordination, and capital. The principle of surplus productivity works in conjunction with the principles of balance, contribution, and increasing and decreasing returns.

Important Concepts Regarding Property:

1. Real property is the sum of tangible and intangible rights in land and improvements. Real estate is the physical land and everything permanently attached to it. Personal property consists of movable items not permanently affixed to, or part of, the real estate.
2. Land is the surface of the earth together with everything under its boundary and everything over it. Improvements are movable items affixed to and becoming part of the real estate.
3. The six basic rights associated with the ownership of property are the rights to use, sell, lease or rent, enter or leave, give away, and refuse to do any of these.
4. The four limitations imposed by governments on the private ownership of property are taxation, eminent domain, police power, and escheat.
5. Fee-simple title is the greatest possible degree of ownership and is title free and clear of all encumbrances.

**CONCEPTS OF VALUE**

1. Value in use embodies the objective premise, which maintains that value is within the object itself. Value in exchange holds that value is within the mind. Value in exchange – market value – is the primary goal of the assessor.
2. Desire, utility, scarcity, and economic purchasing power are essential in creating value.
3. Market value is the most probable price, expressed in terms of money, that a property would bring if exposed for sale in the open market in an arm's-length transaction between a willing seller and a willing buyer, both of whom are knowledgeable concerning all the uses to which it is adapted and for which it is capable of being used.
4. Estimating market value is dependent upon determining the highest and best use of the property. Highest and best use is defined as the legal, physically possible and economically feasible use which will generate the highest net return to the property over a period of time.
5. The determination of highest and best use requires the proper application of the interrelated appraisal principles.

**TRADITIONAL APPROACHES TO VALUE**

Value is an elusive item that occurs in many different forms. The forces and influences which combine to create, sustain, or destroy value are numerous and varied. It is the appraiser's function to define the type of value sought (market value in North Carolina for ad valorem tax purposes), to compile and to analyze all related data, and giving due consideration to all the factors which may influence the value, to process and translate that data into a final opinion or *estimate of value. A*ppraisers must do this for each parcel appraised.

The processing of converting this data into an estimate of value generally takes the form of three recognized approaches to value: Cost Approach, Sales Comparison Approach and Income Approach. The use of one or all three approaches in the valuation of a property is determined by the quantity, quality, and accuracy of the data available to the appraiser for that particular property type. Underlying each of the approaches is the Principle of Substitution; that the justifiable price of a property is no more than the cost of acquiring and/or reproducing an equally desirable substitute property.

The cost approach involves making an estimate of the depreciated cost of reproducing or replacing the building and site improvements. *Reproduction Cost* refers to the cost at a given point in time of reproducing an exact replica of the improvements, whereas *Replacement Cost* refers to the cost of producing improvements of equal utility, but using modern materials and construction techniques. Depreciation is deducted from this cost new for loss in value caused by physical deterioration, and functional or economic obsolescence. To this depreciated cost is then added the estimated value of the land, resulting in an indication of value derived by the Cost Approach.

The significance of the Cost Approach lies in its extent of application. It is the one approach that can be used on all types of construction. It is a starting point for appraisers, and therefore it is a very effective "yardstick" in any equalization program for ad valorem taxes. Its widest application is in the appraisal of properties where the lack of adequate market and income data preclude the reasonable application of the other traditional approaches.

The sales comparison approach involves compiling sales and offerings of properties, which are comparable to the property being appraised. These sales and offerings are then adjusted for any dissimilarity, and a value range obtained by a comparison of said properties. The approach is reliable to the extent that the properties are comparable, and the appraiser's judgment of proper adjustments is sound. The procedure for using this approach is essentially the same for all types of property with the only difference being the elements of comparison.

The significance of this approach lies in its ability to produce estimates of value, which directly reflect the attitude of the market. Its application is contingent upon the availability of comparable sales, and therefore finds its widest range in the appraisal of vacant land and residential properties. Applicable North Carolina case law includes:

> **Neither this section nor G.S. 105-317(a) requires the commission to value property according to its sales price in a recent arm's length transaction when competent evidence of a different value is presented.** In re *Greensboro Office Partnership,* 72 N.C.App. 635, 325 S.E.2d 24, cert. denied, 313 N.C. 602, 330 S.E.2d 610 (1985).
>
> **Where sale was not between a willing buyer and a willing seller, as contemplated by this section, sales price was not indicative of property's true value.**
> In re *Phoenix Ltd. Partnership,* 134 N.C. App. 474, 517 S.E.2d 903 (1999)

Essentially, North Carolina law prohibits the presumption that the sale price of any particular property must be the basis for its appraised value for ad valorem tax purposes. Instead, reliance is placed on the greater weight of evidence determined from a larger sampling of comparable properties and as a result, the appraised value may be less than or greater than the sale price of any particular property.

The income approach measures the present worth of the future benefits of a property by the capitalization of the net income stream over the remaining economic life of the property. The approach involves making an estimate of the "Effective Gross Income" (EGI), of a property, derived by deducing the appropriate "Vacant and Collection Loss" from its estimated "Gross Potential Income" (GPI), based on its economic rent, as evidenced by the yield of comparable properties. From this figure applicable operating expenses are deducted, the cost of taxes and insurance, and reserve allowances for replacements resulting in an estimate of "Net Operating Income" (NOI), which may then be capitalized into an indication of value.

The income approach has its basic application in the appraisals of properties universally bought and sold on their ability to generate and maintain a stream of income for their owners. The effectiveness of the approach lies in the appraiser's ability to relate to the changing economic environment and to analyze income yields in terms of their relative quality and durability. Applicable North Carolina case law includes:

> **Section 105-317(a), in fixing the guide which assessors must use in valuing property for taxes, includes as a factor the past income therefrom, and its probable future income. But the income referred to is not necessarily actual income. The language is sufficient to include the income which could be obtained by the proper and efficient use of the property. To hold otherwise would be to penalize the competent and diligent and to reward the incompetent or indolent.** In re *Greensboro Office Partnership,* 72 N.C.App. 635, 325 S.E.2d 24, cert. denied, 313 N.C. 602, 330 S.E.2d 610 (1985).
>
> **Neither this section nor G.S. 105-317(a) requires the commission to value property according to its sales price in a recent arm's length transaction when competent evidence of a different value is presented.** In re *Greensboro Office Partnership,* 72 N.C.App. 635, 325 S.E.2d 24, cert. denied, 313 N.C. 602, 330 S.E.2d 610 (1985).
>
> **If it appears that the income actually received is less than the fair earning capacity of the property, the earning capacity should be substituted as a factor rather than the actual earnings. The fact finding board can properly consider both.** In re *Property of Pine Raleigh Corp.,* 258 N.C. 398, 128 S.E.2d 855 (1963);
> In re *Valuation of Property Located at 411-417 W. Fourth St.,* 282 N.C. 71, 191 S.E.2d 692 (1972).

**SALES QUALIFICATION**

Sales of some residential, but primarily agricultural, industrial and commercial properties often include personal property. There are also a number of inter-company or intra-family transfers, distressed sales, etc., many of which have limiting terms and conditions. For these reasons and others, further qualification of sales of this type through conversations with one or more of the parties involved may be necessary to determine if the sales price should be adjusted for terms, personal property, etc., or, disqualified entirely. The questionnaire below represents information that is gathered when parties are contacted for additional information.

**SALES CONFIRMATION QUESTIONNAIRE**

Property Owner:
Date of Deed: Deed Book/Page: Revenue Stamps:
Property Description:
Parcel Identification Number (PIN): NBC:

**Type of Property Transaction:**

_____ Single family residence
_____ New Construction
_____ Duplex
_____ Apartment
_____ Condo
_____ Farm
_____ Commercial
_____ Industrial
_____ Vacant Land / Acreage
_____ Other_____

**Building Information:**

Above grade heated square feet_____ Below grade heated square feet _____
Below grade unheated square feet_____
Number of Full Baths _____ Number of Half Baths _____

**If vacant land, reason acquired:**

_____ Investment
_____ To Build
_____ Privacy Buffer
_____ Other, Please Explain_____

**Total Purchase Price:** _____ Purchase Date: _____/_____/_____

If any personal or business property, in excess of $1,000 in value, was included in the sale price, please list the specific item(s) ***AND*** the estimated associated value. Example: Automobile $2,500 -Tractor $2,000 - Copier $1,800 - Hot Tub $3,000

_____

Was the transaction between relatives or related businesses? _____No _____Yes
If Yes, please explain relationship: _____

If this transaction was any of the following please check as appropriate; otherwise, disregard:

_____ Transfer in/out of a Trust
_____ Foreclosure or Bankruptcy Sale
_____ Divorce or Separation Settlement
_____ Estate Settlement / Inheritance
_____ Auction Sale
_____ Transfer of one property for another, no monies exchanged (excluding IRS 1031 exchange)
_____ Gift
_____ Name Change or Addition of Spouse Name

Do you consider the total sale price to be a fair market value? _____Yes _____No
Comments: _____
_____

Print Name: _____ Date: _____ Day Phone: _____

**The Sales Qualification Form**

Sales Qualification form is a record of the sales research performed to establish the quality of a specific sale. Qualified sales are of inestimable value in establishing unit land values, base rates, depreciation schedules, and for checking the quality and degree of equalization of all work performed.

The first step in any sales qualification procedure is the deed qualification of ALL sales parcels. In this step, an appraiser will review the deed transfer for, in part, type of title conveyed, relationship of parties and any abnormalities. The sales should then be further qualified as necessary with the use of a sales qualification form, MLS records or additional information.

**STEP 1: Deed Qualification of All Sales**. This step entails examining deeds for any conditions or statements which might indicate the sale was not an arm's-length transaction. Those deeds having any of the following conditions should be entered on the maintenance document as "U" or an unqualified sale unless further review deems them qualified:

1. Quitclaim, corrective or tax deeds
2. State documentary stamps, $.50
3. Same family name as to grantee and grantor
4. Deeds from or to banks or loan companies
5. Deeds indicating a trade or exchange or conveying less than whole interest, i.e. life estates, etc.
6. Deeds including live stock or personal property, i.e. trucks, equipment, cattle, etc.
7. Multi-parcel sales unless the amount paid for each parcel is specified
8. Deeds including exchanges of real or personal property
9. Deeds to or from any of the following:

| | |
|---|---|
| Administrators | Clerks of Court |
| Executors | County Commissioners |
| Guardians | Counties |
| Receivers | Trustees of Internal Imp. Fund |
| Sheriffs | Cities and/or municipalities |
| Masters | United States of America or Federal Agencies |
| Churches | Utility Companies |
| Lodges | Educational Institutions |
| Fraternal Institutions | Benevolent Institutions |

All sales that are deemed to be not arms-length transactions should be identified as such using the appropriate Sales Validity Code (NAL). Sales Validity Codes as provided in the below table correspond strictly to the North Carolina Department of Revenue's guidelines.

**Sales Validity Codes (N.A.L. – Not Arms Length)**

| *Code* | *Description* | *Full Description* |
|---|---|---|
| Q | Qualified | Qualified |
| U | Unqualified | Unqualified |
| UA | Mult Parcels | Multiple Parcels Involved in Sale |
| UB | After Sale | Improvements Not Included in Sale |
| UD | Date Out | Deed Date is Outside Study Period |
| UE | Related | Transaction is Between Related Parties |
| UF | Fractional | Grantor Conveying Fractional Interest |
| UG | Life Estate | Reserves Grantor, Life Estate or Other Interest |
| UH | Lease After | Reserve Grantor Possession for Period After Sale |
| UI | Govt/Bank | Gov't, Public Utility, Lending Institution |
| UJ | Tax Exempt | Tax Exempt or Cemetery Property |
| UK | Non Profit | Church, School, Lodge or Educational Organization |
| UM | Two Counties | Property Situated in More than 1 County |
| UN | Timbermine | Minerals, Timber, or Rights to Mine |
| UO | Inc Personal | Includes Personal Property |
| UP | Forced | Forced Sale or Auction |
| UQ | Cont Deed | Contract for Sale Made Prior to Study Date |
| UR | Exchange | Trade or Exchange of Real Property |
| US | Unidentified | Real Property is Unidentified on County Records |
| UX | Other | Other |
| UZ | Value Unk | Assessed Value Unknown due to NC, Split, etc. |

**Sales Confirmation Questionnaire**

Changes in sales prices can be made to compensate for personal property included in the sales, up to and including disqualification of the sale. Having done this, a sale may be treated as qualified and used as a guide for establishing values for similar properties. The qualification process enables the appraiser to gather the information necessary to adjust sales prices so they will reflect fair market sales.

During sales review, other factors may come to light indicating that an adjustment is necessary to the sales price for what appears to be an otherwise qualified sale. These include market and economic factors. For example, if a property had to remain on the market for an excessive period of time prior to selling, an adjustment may be appropriate. An appraiser can find himself or herself in a most advantageous position in determining the type of adjustments required because of his or her familiarity with the local market conditions. Adjustments should be made to the sales price for any valid reason in order to supply a qualified comparable for valuing similar properties. Note that tax assessments shall not be adjusted due to economic conditions, among other reasons, in a non-revaluation year. Therefore, said adjustments to sales prices are for future use.

It is most important to remember that the sales confirmation questionnaire should be properly filled out and filed for future reference.

# COST APPROACH

**INTRODUCTION**

If the highest and best use of a property is its current use, a valid indication of value may be derived by estimating the value of the land, and adding the land value to the depreciated value of the structures on the land; the resulting equation being...

Estimated Land Value
\+ Estimated Replacement Cost New of Structures
\- Estimated Depreciation
= Estimate of Property Value

Since estimating the land value is covered in a separate section, this section will address itself to the two remaining elements: Replacement Cost and Depreciation.

**REPLACEMENT COST**

Replacement Cost is the current cost of producing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. The distinction being drawn is one between Replacement Cost, which refers to a substitute property of equal utility, as opposed to Reproduction Cost, which refers to an exact replica of the property. In a particular situation the two concepts may be interchangeable, but they are not necessarily so. They both, however, have application in the Cost Approach to value, the difference being reconciled in the consideration of depreciation allowances.

In actual practice, outside of a few historic type communities in this country, developers and builders, for obvious economic reasons, most often replace buildings, not reproduce them. It logically follows that if an appraiser's job is to measure the actions of knowledgeable persons in the market place, the use of proper replacement costs should provide an accurate point of beginning in the valuation of most improvements.

The replacement cost includes the total cost of construction incurred by the builder whether preliminary to, during the course of, or after completion of the construction of a particular building. Among these are material, labor, all subcontracts, builders' overhead and profit, architectural and engineering fees, consultation fees, survey and permit fees, legal fees, taxes, insurance, and the cost of interim financing.

**Estimating Replacement Cost**

There are various methods that may be employed to estimate replacement cost new. The methods widely used in the appraisal field are the quantity survey method, the unit-in-place or component part-in-place method, and the model method.

*The Quantity-Survey Method* involves a detailed itemized estimate of the quantities of various materials used, labor and equipment requirements, architect and engineering fees, contractor's overhead and profit, and other related costs. This method is primarily employed by contractors and cost estimators for bidding and budgetary purposes and is much too laborious and costly to be effective in every day appraisal work, especially in the mass appraisal field. The method, however, does have its place in that it is used to develop certain unit-in-place costs, which can be more readily applied to estimating for appraisal purposes.

The *Unit-in-Place Method* is employed by establishing in-place cost estimates (including material, labor, overhead and profit) for various structural components. The prices established for the specified components are related to their most common units of measurement such as cost per yard of excavation, cost per lineal foot of footings, and cost per square foot of floor covering.

The unit prices can then be multiplied by the respective quantities of each component as they are found in the composition of the subject budding to derive the whole dollar component cost, the sum of which is equal to the estimated cost of the entire building, providing of course, that due consideration is given to all other indirect costs which may be applicable. This components part-in-place method of using basic units can also be extended to establish prices for larger components in-place such as complete structural floors (including the finish flooring, sub-floor, joists and framing), which are likely to occur repeatedly in a number of buildings.

The *Model Method* is still a further extension, in that unit-in-place costs are used to develop base unit square foot or cubic foot costs for total specified representative structures in place, which may then serve as "models" to derive the base unit cost of comparable structures to be appraised. The base unit cost of the model most representative of the subject building type is applied to the subject building and appropriate tables of additions and deductions are used to adjust the base cost of the subject building to account for any significant variations between it and the model.

Developed and applied properly, these pricing techniques will assist the appraiser in arriving at valid and accurate estimates of replacement cost new as of a given time, which for ad valorem tax purposes is always January 1 of the reappraisal year. That cost generally represents the upper limit of value of a structure. The difference between its replacement cost new and its actual value is depreciation. The final step in completing the Cost Approach then is to estimate the amount of depreciation and deduct said amount from the replacement cost new.

**Depreciation**

Simply stated, “accrued depreciation” is defined as a loss in value from all causes. As applied to real estate, it represents the loss in value between market value and the sum of the replacement cost new of the improvements plus the land value as of a given time. The causes for the loss in value may be divided into three broad classifications; Physical Deterioration, Functional Obsolescence, and Economic Obsolescence.

*Physical Deterioration* pertains to the wearing out of the various building components, referring to both short-life and long-life terms, through the action of the elements, age, and use. The condition may be considered either curable or incurable, depending upon whether it may or may not be practical and economically feasible to cure the deficiency by repair and replacement.

*Functional Obsolescence* is a condition caused by either inadequacies or super-adequacies in design, style, composition, or arrangement inherent to the structure itself, which tends to lessen its usefulness and desirability in the marketplace. Like physical deterioration, the condition may be considered either curable or incurable. Some of the more common examples of functional obsolescence are inadequate wall and ceiling heights, excessive structural construction, surplus capacity, and ineffective layouts.

*Economic Obsolescence* is a condition caused by factors extraneous to the property itself, such as encroachment of inharmonious land uses on adjoining or nearby parcels. The condition is generally incurable in that the causes lie outside the property owner's realm of control.

**Estimating Depreciation**

An estimate of depreciation represents an opinion of the appraiser as to the degree that the present and future appeal of a property has been diminished by deterioration and obsolescence. Of the three estimates necessary to the cost approach, it is the one most difficult to make. The accuracy of the estimate will be a product of the appraiser's experience in recognizing the symptoms of deterioration and obsolescence and the ability to exercise sound judgment in equating all observations to the proper monetary allowance to be deducted from the replacement cost new.

Physical deterioration and/or functional obsolescence can be measured by observing and comparing the physical condition and/or functional deficiencies of the subject property as of a given time with either an actual or hypothetical, comparable, new and properly planned structure.

Curable physical deterioration and functional obsolescence can be measured by estimating the cost of restoring each item of depreciation to a physical condition as good as new, or estimating the cost of eliminating the functional deficiency.

Functional and economic obsolescence can be measured by capitalizing the estimated loss in rental due to the structural deficiency or lack of market demand.

Total accrued depreciation may be estimated by first estimating the total useful life of a structure and then translating its present condition, desirability, and usefulness into an effective age (rather than an actual age), which would represent that portion of its total life (percentage), which has been used up.

Total accrued depreciation may also be estimated by deriving the amount of depreciation recognized by purchasers as evidenced in the prices paid for property in the market place; the loss of value being the difference between the cost of replacing the structure new and its actual selling price (total property selling price less the estimated value of the land).

# INCOME APPROACH

## INTRODUCTION

The justified price paid for income producing property is no more than the amount of investment required to produce a comparably desirable return; and since the market can be analyzed in order to determine the net return actually anticipated by investors, it follows that the value of income producing property can be derived from the income which it is capable of producing. Involved is an estimate of income through the collection and analysis of available economic data, the development of a proper capitalization rate, and the processing of the net income into an indication of value by employing one or more of the acceptable capitalization methods and techniques.

The caveat to a sole reliance on the above premise in the income approach occurs when actual and/or economic rents will not support the sales price. In those instances, other forces must be assumed to be present; the anticipation of future benefits being foremost.

### THE PRINCIPLES OF CAPITALIZATION

*Capitalization* is the process for converting the net income produced by property into an indication of value. Through the years of appraisal history, a number of procedures have been recognized and employed by appraisal authorities in determining the value of real estate by the income approach. For ad valorem tax purposes, when and where reliable data is available, direct capitalization will be used.

### EXPLORING THE RENTAL MARKET

The starting point for the appraiser is an investigation of current economic rent in a specific area in order to establish a sound basis for estimating the gross income, which should be returned from competitive properties. The appraiser must make a distinction between *economic rent,* the rent which the property would normally be expected to produce on the open market, as opposed to *actual rent,* that which the property is actually producing at the time of the appraisal, usually due to lease terms established sometime in the past.

The first step then is to obtain specific income and expense data on properties, which best typify normal market activity. The data is necessary to develop local guidelines for establishing the economic rent and related expenses for various types of properties.

The next step is to similarly collect income and expense data on individual properties, and to evaluate the data against the established guidelines. The collection of income and expense data (I & E) is an essential phase in the valuation of commercial properties. The appraiser is primarily concerned with the potential earning power of the property. The objective is to estimate its expected net income. Income and Expense Statements of past years are valuable only to the extent to which they serve this end. The statements must not only be complete and accurate, but must also stand the test of market validity. Consideration of the following factors should assist the appraiser in evaluating the Income & Expense data in order to arrive at an accurate and realistic estimate of net income; sometimes expressed as “Net Income Before Recapture”.

Orange County may send surveys soliciting income and expense data from property owners of commercial (income-producing) property. Historically, a more significant amount of additional information becomes available upon the mailing of the reappraisal notices of value. At that point, as part of the local appeals process, income and expense data is generally provided by the property owner in support of a claim. The quality of the data is dependent on the documentation provided. Lease information (lease rates, terms, and other stated considerations) is best. Undocumented statements are least useful.

**QUESTIONS RELATING TO INCOME DATA**

A. Was the reported income produced entirely by the subject property? Very often the rental will include an amount attributable to one or more additional parcels of real estate. In this case, it would be necessary to obtain the proper allocations of rent.

B. Was the income attributable to the subject property as it physically existed at the time of the appraisal, or did the appraisal include the value of leasehold improvements and remodeling for which the tenant paid in addition to rent? If so, it may be necessary to adjust the income to reflect economic rent.

C. Does the reported income represent a full year's return? It is often advisable to obtain both monthly and annual amounts as a crosscheck.

D. Does the income reflect current economic rent? Is either part or all of the income predicated on old leases? If so, what are the provisions for renewal options and rates?

E. Does the reported income reflect 100% occupancy? What percentage of occupancy does it reflect? Is this percentage typical of this type of property, or is it due to special non-recurring causes?

F. Does the income include rental for all marketable space? Does it include an allowance for space, if any, which is either owner or manager occupied? Is the allowance realistic?

G. Is the income attributable directly to the real estate and conventional amenities? Is some of the income derived from furnishings and appliances? If so, it will be necessary to adjust the income or make provisions for reserves to eventually replace them, whichever local custom dictates.

H. In many properties an actual rental does not exist because the real estate is owner occupied. In this event it is necessary to obtain other information to provide a basis to estimate economic rent. The information required pertains to the business operation using the property. Proper analysis of the annual operating statements of the business, including gross sales or receipts, can provide an accurate estimate of economic rent. Caution must be exercised to relate the income and expense data as it is attributable to the property and not the business enterprise. Information requirements for a few of the more common property uses are as follows:

| | |
|---|---|
| Retail Stores | The annual net gross sales (Gross sales less returned merchandise), and leased space if any. |
| Hotels and Motels | The annual operating statement of the business. If retail or office space is leased in these properties, obtain the actual rent paid. |
| Theaters | The annual gross receipts (including admissions and concessions) and seating capacity. |
| Automobile Parking | The annual gross receipts. |

**ANALYSIS OF EXPENSE DATA**

The appraiser must consider only those expenses, which are applicable to the cost of ownership; that is, those expenses, which are normally owner incurred. Any portion of the expenses incurred directly or indirectly by the tenant should not be considered. Each expense item must stand the test of both legitimacy and accuracy. How do they compare with the established guidelines and norms? Are they consistent with the expenses incurred by comparable properties?

*Management* refers to the cost of administration. These charges should realistically reflect what a real estate management company would actually charge to manage the property. If no management fee is shown on the statement, the appraiser must make a proper allowance. On the other hand, if excessive management charges are reported, as is often the case, the appraiser must disregard the reported charges and use an amount, which he deems appropriate and consistent with comparable type properties. The cost of management bears a relationship with the risk of ownership and will generally range between 4 to l0% of the gross income.

*General expenses* may include such items as the cost of services and supplies not charged to a particular category. Unemployment and F.I.C.A. taxes, Workmen's Compensation, and other employee insurance plans are usually legitimate deductions when employees are a part of the building operation.

*Reimbursed expenses* refer to the cost associated with the maintenance of public or common areas of the commercial property. This expense is passed on to the tenants and should, therefore, only be considered when the amount of reimbursement is included as income.

*Miscellaneous expenses* are the "catch-all" category for incidentals. This item should reflect a very nominal percentage of the income. If expenses reported seem to be excessive, the appraiser must examine the figures carefully in order to determine if they are legitimate and if so, to allocate them to their proper category.

*Cleaning expenses* are legitimate charges. Many are for such items as general housekeeping and maid service, and include the total cost of labor and related supplies. All or a portion of the cleaning services may be provided by outside firms working on a contract basis. Cleaning expenses vary considerably and are particularly significant in operations such as offices and hotels. Rule of thumb norms for various operations are made available through national management associations. The appraiser should have little difficulty in establishing local guidelines.

*Utilities* are generally legitimate expenses and if reported accurately, need very little reconstruction by the appraiser, other than to determine if the charges are consistent with comparable properties. Local utility companies can provide the appraiser with definite guidelines.

*Heat and Air Conditioning* costs are often reported separately and in addition to utilities. The expenses would include the cost of fuel other than the above-mentioned utilities, and may include, especially in large installations, the cost of related supplies, inspection fees, and maintenance charges. These are generally legitimate costs, and the same precautions prescribed for "utilities" are in order.

*Elevator* expenses, including the cost of repairs and services, are legitimate deductions, and are generally handled through service contracts. These fees can generally be regarded as fairly stable annual recurring expenses.

*Decorating and minor alterations* are necessary to maintain the income stream of many commercial properties. In this respect they are legitimate expenses. However, careful scrutiny of these figures is required. Owners tend to include the cost of major alterations and remodeling which us, in fact, capital expenditures, and as such are not legitimate operating expenses.

*Repairs and Maintenance* expenses reported for any given year may not necessarily be a true indication of the average or typical annual expense for these items. For example, a statement could reflect a substantial expenditure for a specific year (possibly because the roof was replaced and/or several items of deferred maintenance were corrected); yet the statement for the following year may indicate that repairs and maintenance charges were practically none. It is necessary for the appraiser to either obtain complete economic history on each property in order to make a proper judgment as to the average annual expense for these items, or include a proper allowance based on norms for the type and age of the improvements to cover annual expenses. Since it is neither possible nor practical to obtain enough economic history on every property, the latter method is generally used and the amounts reported for repairs and maintenance are then estimated by the appraiser.

*Insurance.* Caution must be used in accepting insurance expense figures. Cost shown may be for more than one year, or may be for blanket policies including more than one building. It is generally more effective for the appraiser to establish his own guidelines for insurance. The appraiser must also be careful to include only items applicable to the real estate. Fire extended coverage and owner's liability are the main insurance expense items. Separate coverage's on special component parts of the buildings, such as elevators and plate glass, are also legitimate expenses.

*Real Estate Taxes.* In making appraisals for tax purposes, the appraiser must exclude the actual amount reported for real estate taxes. Since future taxes will be based on his appraised value, the appraiser must express the taxes as a factor of the estimated value. This can be done by including an additional percentage in the capitalization rate to account for real estate taxes.

*Depreciation.* The figure shown for depreciation on an operating statement is a bookkeeping figure which the owner uses for Internal Revenue purposes and should not be considered in the income approach. This reflects a tax advantage, which is one of the benefits of ownership.

*Interest*. Although interest is considered a legitimate expense, it is always included in the Capitalization Rate. Most property is appraised as if it were free and clear; however, the appraiser does consider the interest of a current mortgage in the Capitalization Rate build-up.

*Land Rent.* When appraising for real estate tax purposes, only the sum of the leasehold and the leased fee is usually considered. Land rent is not deducted as an expense. Considered separately, rent from a ground lease would be an expense to the leasehold interest and an income to the leased fee. However, if land were rented from another property to supply additional parking for example, that land rent would be an allowable expense.

It is obvious that there are some expense items encountered on operating statements that the appraiser should not consider as allowable. This is because he is interested in legitimate cash expenses only. Income statements are usually designed for income tax purposes where credit can be taken for borrowing costs and theoretical depreciation losses.

It is virtually impossible and certainly not always practical to obtain a complete economic history on every commercial property being appraised. On many properties, however, detailed economic information can be obtained through the use of Income and Expense forms. One must realistically recognize the fact that the data obtainable on some properties is definitely limited.

In most cases, the gross income and a list of the services and amenities furnished can be obtained during the data gathering operation. However, in order to insure a sound appraisal, it may be necessary to estimate the fixed operating expenses. This is best accomplished by setting guidelines for expenses, based on a percent of Effective

Gross Income or a cost per square foot of leasable area. These percentages or costs will vary depending on the services supplied and the type of property.

**CAPITALIZATION METHODS**

The most prominent methods of capitalization are Direct, Straight Line, Sinking Fund, and Annuity. Each of these is a valid method for capitalizing income into an indication of value. The basis for their validity lies in the action of the market, which indicates that the value of income producing property can be derived by equating the net income with the net return anticipated by informed investors. This can be expressed in terms of a simple equation:

**Value = Net Income ÷ Capitalization Rate**

The *Straight Line and Sinking Fund* methods are both actual forms of Straight Capitalization, with one using Straight Line recapture and the other using Sinking Fund recapture. Both methods follow the same basic principles as Direct Capitalization, differing only in that they provide for separate capitalization rates for land and buildings; the building rate differing from the land rate in that it includes an allowance for recapture.

*Straight Line Capitalization* allows for recapture based on remaining economic life of the building – implying that at the end of that period of time, there would be zero improvement value.
There are three fallacies in this thinking. First, the potential buyer (investor) has no intention of holding the property that long. The average investment period might average ten years. Second, the investor anticipates that at the end of that period he/she will either get all the money back or will make a profit. And third, is the depreciation allowance possible in connection with federal income taxes.

Depreciation allowances may begin to run out between seven and ten years, so the advantages of owning the property are reduced considerably. A prudent owner may choose to sell the property at this point and re-invest in another property so that he may begin the depreciation cycle again and continue to take full advantage of the favorable tax laws.

For these reasons, the Straight Line Capitalization Method does not usually follow what the market indicates.

*Straight Line Recapture* calls for the return of investment capital in equal increments or percentage allowances spread over the estimated remaining economic life of the building.

*Sinking Fund Recapture* calls for the return of invested capital in one lump sum at the termination of the estimated remaining economic life of the building. This is accomplished by providing for the annual return of a sufficient amount needed to invest and annually re-invest in safe interest-bearing accounts, such as government bonds or certificates of deposit, which will ultimately yield the entire capital investment during the course of the building's economic life.

*Annuity Capitalization* lends itself to the valuation of long-term leases. In this method, the appraiser determines, by the use of annuity tables, the present value of the right to receive a certain specified income over stipulated duration of the lease. In addition to the value of the income stream, the appraiser must also consider the value that the property will have once it reverts back to the owner at the termination of the lease. This reversion is valued by discounting its anticipated value against its present day worth. The total property value then is the sum of the capitalized income stream plus the present worth of the reversion value.

**CURRENT TECHNIQUES**

There are two methods, however, that do lend themselves to an accurate measure of market value based on potential income. These are Direct Capitalization, utilizing the Direct Comparison Method of Rate Selection, and Mortgage Equity Capitalization.

**Direct Capitalization**

In *Direct Capitalization,* the appraiser determines a single overall capitalization rate. This is done by analyzing actual market sales of similar types of properties. The appraiser estimates the net income of each property, and divides the net income by the sales price to arrive at an overall rate to provide an indication of value. Many of the appellate court rulings regarding the valuation of income-producing properties for ad valorem tax purposes have relied on direct capitalization.

**Mortgage Equity Capitalization**

*Mortgage Equity Capitalization* is a form of direct capitalization with the major difference in the two approaches being the development of the overall capitalization rate. In this method, equity yields and mortgage terms are considered influencing factors in construction of the interest rate. In addition, a plus or minus adjustment is required to compensate for anticipated depreciation or appreciation. This adjustment can be related to the recapture provisions used in other capitalization methods and techniques.

**Residual Techniques**

It can readily be seen that any one of the factors of the Capitalization Equation (Value = Net Income ÷ Capitalization Rate) can be determined if the other two factors are known. Furthermore, since the value of property is the sum of the land value plus the building value, it holds that either of these can be determined if the other is known. The uses of these mathematical formulas in capitalizing income into an indication of value are referred to as the *residual techniques,* or more specifically, the property residual, the budding residual, and the land residual techniques.

*The Property Residual Technique* is an application of Direct Capitalization. In this technique, the total net income is divided by an overall capitalization rate (which provides for the return on the total investment) to arrive at an indicated value for the property. This technique has received more popular support in recent years because it closely reflects the market. With this technique, the capitalization rate may be developed by either direct comparison in the market or by the Mortgage Equity Method.

The *Building Residual Technique* requires the value of the land to be a known factor. The amount of net income required to earn an appropriate rate of return on the land investment is deducted from the total net income. The remainder of the net income (residual) is divided by the building capitalization rate (which is composed of a percentage for the return on the investment, plus a percentage for the recapture of the investment) to arrive at an indicated value for the building.

The *Land Residual Technique* requires the value of the building to be a known factor. The amount of net income required to provide both a proper return on and the recapture of the investment is deducted from the total net income. The remainder of the net income (residual) is then divided by the land capitalization rate (which is composed of a percentage for the return on the investment) to arrive at an indicated value for the land.

## Income Model Attributes

| | Annual Income per SF | Vacancy | Operating Expenses | Reserves | Direct Capitalization Rate |
|---|---|---|---|---|---|
| Apartment | $5.00-$35.00 | 1%-20% | 20%-70% | 2%-6% | .0400 - .1500 |
| Luxury Apt | $6.00-$50.00 | 1%-20% | 20%-70% | 2%-6% | .0400 - .1500 |
| Student Apt | $5.00-$35.00 | 1%-20% | 20%-70% | 2%-6% | .0400 - .1500 |

| | Average Daily Rate | Food/Bev Ratio | Misc. Income | Vacancy | Operating Expenses | Departmental Expenses | Reserves | Direct Cap Rate |
|---|---|---|---|---|---|---|---|---|
| Hotel/Motel Full Facility | $50.00-$400.00 | 0%-35% | 0%-20% | 20%-60% | 10%-60% | 10%-80% | 2%-8% | .0600 - .1500 |
| Hotel/Motel Limited Fac. | $30.00-$300.00 | 0% | 0%-10% | 20%-60% | 10%-60% | 10%-50% | 2%-8% | .0600 - .1500 |
| Motel Extend. Stay | $25.00-$250.00 | 0% | 0%-10% | 20%-60% | 15%-60% | 15%-50% | 2%-8% | .0600 - .1500 |
| Motel Independent | $25.00-$175.00 | 0% | 0%-10% | 10%-60% | 20%-60% | 20%-50% | 2%-8% | .0600 - .1500 |
| Hotel High Rise | $65.00-$400.00 | 0%-40% | 0%-30% | 15%-65% | 20%-60% | 30%-60% | 2%-8% | .0600 - .1500 |
| Hotel Luxury | $100.00-$1100.00 | 0%-40% | 0%-30% | 15%-55% | 20%-60% | 30%-60% | 2%-8% | .0600 - .1500 |

| | Annual Income per SF | Vacancy | Operating Expenses | Reserves | Direct Capitalization Rate |
|---|---|---|---|---|---|
| General Retail | $5.00-$75.00 | 1%-30% | 2%-40% | 2%-5% | .0500 - .1500 |
| Super Regional Mall | $5.00-$100.00 | 1%-30% | 2%-40% | 2%-5% | .0500 - .1500 |
| Community SC | $8.00-$50.00 | 1%-30% | 3%-40% | 2%-5% | .0500 - .1500 |
| Neighborhood SC | $5.00-$50.00 | 1%-30% | 3%-40% | 2%-5% | .0500 - .1500 |
| Multi-Tenant Shops | $5.00-$50.00 | 1%-30% | 2%-40% | 2%-5% | .0500 - .1500 |
| Department Store | $1.00-$35.00 | 1%-30% | 2%-40% | 2%-5% | .0500 - .1500 |
| Discount Store | $2.00-$35.00 | 2%-30% | 2%-40% | 2%-5% | .0500 - .1500 |
| Supermarket | $2.00-$25.00 | 2%-30% | 2%-35% | 2%-5% | .0500 - .1500 |
| Junior Anchor | $2.00-$25.00 | 2%-30% | 2%-40% | 2%-5% | .0500 - .1500 |
| Junior Dept Store | $2.00-$25.00 | 2%-30% | 2%-40% | 2%-5% | .0500 - .1500 |
| Bulk Retail | $2.00-$25.00 | 2%-30% | 2%-40% | 2%-5% | .0500 - .1500 |

| | Annual Income per SF | Vacancy | Operating Expenses | Reserves | Direct Capitalization Rate |
|---|---|---|---|---|---|
| Gen Office Gross Lease | $5.00-$50.00 | 2%-20% | 10%-40% | 1%-5% | .0500 - .1500 |
| Medical Office | $5.00-$75.00 | 2%-20% | 0%-50% | 2%-5% | .0500 - .1500 |
| | | | | | |

| | Annual Income per SF | Interior Finish per SF | Air Conditioning per SF | Vacancy | Operating Expenses | Reserves | Direct Capitalization Rate |
|---|---|---|---|---|---|---|---|
| General Warehouse | $1.00-$15.00 | $1.00-$10.00 | $.50-$4.00 | 1%-50% | 0%-50% | 2%-5% | .0500 - .1500 |
| Bulk/Dist Warehouse | $1.00-$15.00 | $1.00-$10.00 | $.50-$4.00 | 1%-50% | 2%-50% | 2%-5% | .0500 - .1500 |
| Flex Warehouse | $2.00-$20.00 | $1.00-$10.00 | $.50-$4.00 | 1%-50% | 2%-50% | 2%-5% | .0500 - .1500 |
| Mini-Warehouse | $5.00-$20.00 | NA | NA | 2%-30% | 15%-50% | 2%-5% | .0500 - .1500 |

| | Annual Income per SF | Vacancy | Operating Expenses | Reserves | Direct Capitalization Rate |
|---|---|---|---|---|---|
| Restaurant | $5.00-$75.00 | 2%-25% | 2%-50% | 2%-5% | .0500 - .1500 |
| Fast Food | $5.00-$75.00 | 2%-25% | 2%-50% | 2%-5% | .0500 - .1500 |
| Bank | $20.00-$80.00 | 2%-20% | 2%-50% | 0%-5% | .0400 - .1500 |
| Free-Standing Pharmacy/Drugstore | $15.00-$75.00 | 2%-20% | 0%-50% | 2%-5% | .0400 - .1500 |
| Public Parking Deck | $10.00-$40.00 | 10%-40% | 10%-50% | 2%-5% | .0400 - .1500 |
| Convenience Store/Food Mart | $10.00-$75.00 | 3%-25% | 2%-50% | 2%-5% | .0400 - .1500 |
| Auto Service | $5.00-$30.00 | 5%-25% | 2%-50% | 2%-5% | .0500 - .1500 |
| Premium Service Garage | $5.00-$50.00 | 5%-25% | 2%-50% | 2%-5% | .0500 - .1500 |
| Oil & Lube | $15.00-$75.00 | 5%-25% | 2%-50% | 2%-5% | .0500 - .1500 |

# SALES COMPARISON APPROACH

**INTRODUCTION**

The sales comparison approach to value is a method for estimating the market value of a property on the basis of information from sold properties. It is the most commonly used approach in the minds of many participating in the market, as it mimics their general inclinations whether buying and selling a car, a piece of furniture, or an item of clothing. In the process of making comparisons, the buyer generally is aware of a comparable car, piece of furniture, or a similar piece of clothing available at a different business for a different or not-so-different price. Sellers are also mindful of what is being offered in the market that is in direct competition with what they are attempting to sell.

The sales comparison approach is so named because the act of comparison is the basic technique being employed. Actually, comparisons are made in each of the three valuation approaches. It is more accurate to say the entire appraisal process is a series of comparisons. This is especially true in the mass appraisal process for property tax administration, where in the final analysis it must be demonstrated that all taxable properties have been uniformly, accurately and equitably valued.

**THE SALES COMPARISON APPROACH**

Constitutions, statutes, and case law define a market value standard for assessment purposes. When sales data is available, the sales comparison approach is generally considered the most reliable. However, in North Carolina assessment litigation, under the "rules of evidence" a bona fide sale of the subject property may not be considered the best evidence of market value “when competent evidence of a different value is presented”. In re *Greensboro Office Partnership,* 72 N.C.App. 635, 325 S.E.2d 24, cert. denied, 313 N.C. 602, 330 S.E.2d 610 (1985).

The purpose, in both the North Carolina statutory language and the interpretation of relating actual sales to market value by the North Carolina Courts, is to emphasize uniformity and the equitable distribution of the tax burden relative to the premise that similar properties should share similarly in that burden. For that reason, a property may not be appraised and assessed for its most recent sales price. Instead, each sale will be included in the sales file from which sales will be analyzed by property type, location, etc., and from which assessments can be fine-tuned for greater uniformity.

The sales comparison approach models the behavior of the market by comparing properties being appraised (subject property) with similar properties that have recently sold (comparable properties). Comparable properties are selected for their similarity to the subject property. Their sales prices are then adjusted for their differences from the subject. Finally, a market value for the subject is determined from the adjusted sales prices of the comparable properties.

The economic principles of supply and demand provide a framework for understanding how the market works. The interaction of supply and demand factors impacts property prices. Supply depends on current inventories and, in the longer run, on the availability of human skills, material, and capital. Demand is influenced by population levels, mortgage rates, income levels, local services, personal housing preferences, and the cost of substitutes. One demand factor is the cost of substitutes, which ensures that prudent consumers will pay no more for a piece of property than for comparable

properties with equal utility, assuming no unreasonable delays. The Principle of Substitution implies that the market will recognize differences in utility between the subject and its best alternatives by a difference in price.

The sales comparison approach requires the following steps:

- Definition of the appraisal problem.
- Data collection.
- Analysis of market data to develop units of comparison and select attributes for adjustments.
- Development of reasonable adjustments.
- Application of the model to adjust the sales prices of comparables to the subject property.
- Analysis of the adjusted sales prices to indicate the value of the subject property.

The entire valuation process depends on accurately defining the appraisal problem, because the nature of the problem determines the sources of information, methods of comparable selection, and adjustment techniques.

Defining the appraisal problem includes:

- Identifying the property (Parcel Number or PIN for ad valorem tax purposes)
- The rights to be appraised (generally Fee Simple for ad valorem tax purposes)
- The date of appraisal (January 1 of the reappraisal year)
- The use (Highest and Best Use)
- The type of value to estimate (Market Value, for North Carolina ad valorem tax purposes)

The rights to be valued can be a partial interest or fee simple absolute interest. Fee simple absolute interest is usually assumed for both the subject and comparable sales. The date of the appraisal, the as of date, is usually defined by statute. In narrative appraisals, the date of appraisal is identified on the valuation report. All comparables are adjusted to the as of date.

The collection of accurate data is also essential to the sales comparison approach. The appraiser analyzes data to identify important supply and demand factors and determine data needs.

Although the sales comparison approach has such a wide application as a method of estimating value there are factors, which do or can limit its usefulness. Examples of these limitations include:

1. No provision is made for arriving at an estimate of value in those cases where no comparable properties have been sold in recent months or years.

2. No two properties are ever exactly alike. At the very least, they vary in location, even if they are alike in other respects.

3. Depreciation affects value. Because houses are dissimilar in quality of construction and materials, they depreciate at varying rates. Even structures built exactly alike depreciate at different rates because of inevitable differences in maintenance, occupancy, and use.

4. Amenities, being intangible qualities, are difficult to compare. The value of otherwise similar houses may not be the same because of the direction in which one house faces or the view it affords its occupants.

5. Learning the exact conditions attending each sale is essential so that the validity of the sale as comparative data may be substantiated. If the owner could not wait for an informed buyer and/or was unaware of the current market, the price accepted may not be indicative of the property's value in the market. Many motivations lead to the transfer of real property at figures unrelated to its market value. Transfers of property between relatives frequently do not give a true indication of market value and are rarely relied upon as being "arms-length".

6. Properties can vary considerably in their appointments and equipment; heating system, plumbing and electrical equipment and fixtures, insulation, kitchen facilities, and built-in features. All of these factors may be considered in the comparative process, adjusting for the degree of variation. The more factors to be compared and adjusted, the greater the number of decisions and judgments the appraiser must make. Obviously, the more decisions and judgments that must be made, the greater the opportunity for error.

In spite of its limitations, the sales comparison approach has broad application in all appraisal work. The value estimates found by the use of this approach are considered particularly significant because they are expressions of value as established by transactions in the market.

Orange County employs the sales comparison approach to estimating market value for both the residential category and some commercial properties. Additionally, some valuation parameters of the other valuation approaches (cost & income) are influenced by the application of and observations gleaned from the sales comparison approach.

**EXPLANATION OF THE SALES COMPARISON APPROACH PROCESS**

There are five specific applications of the sales comparison approach in the appraisal process. Three relate to residential properties and two relate to commercial properties.

Residential

- Multiple Regression Analysis via Group Modeling (MRA)
- Comparable Sales Estimate of Value (Comp Sales)
- Time Adjustment of Previous Selling Price (TASP)

Commercial

- Capitalization of Net Income *(Income)*
- Comparable Value Approach

The quality of these five applications, moreover, the quality of the appraisal/assessment base for real property, depends upon the quality of the sales file.

Conceptually, the database is made up of two separate, interacting, storage files:

1. A large file (Property Characteristics File) that houses the property characteristics on all properties;
2. A smaller sub-file (Sales Information File) created from the Property Characteristics File that houses a "snapshot" of the information stored in the characteristics file, plus, additional information such as sales date, sale amount, etc.

The purpose of the Sales Information File, in addition to facilitating faster processing time, is to permit adjustments to a parcel so that the condition of the property as of the time of sale can be reflected without alteration to the current property characteristics stored in the Property Characteristics File.

In determining market value by the sales comparison approach a sufficient number of complete and valid sales is imperative. Therefore, proper procedures should be developed and adhered to in the creation and maintenance of a Sales File. Otherwise, the results produced from an unverified Sales File would be unreliable and most likely, misleading.

**TIME ADJUSTED SALES PRICE (TASP)**

The time adjusted sales price (TASP) is an extrapolation to the present day (January 1 of the reappraisal year), of a previously known selling price as of a specific date for a particular property, based upon the market trend in the area of the property in question. It should be noted in particular that two parameters must be known about the particular property before this extrapolation is made, namely the exact date and amount of transfer consideration. Moreover, it is also necessary to have an established set of accurate sales data on similar properties in the area, in order to establish the trend of sales prices over a period of time. The important feature of this calculation is that it does not establish a total estimated selling price from a prior calculation; rather it merely calculates the increment of value that has been added to an already established market value. That is to say, the TASP does not attempt to establish the magnitude of the market value, but rather it computes a value increment based on the change in market value in an area. Thus, the market value for a particular property is established by the market itself at some point in the past, while the change in that known market value to today's date is indicated by the trend in market values in that area.

The calculation of the TASP depends upon the knowledge of the selling price at some known time in the past, and the ability to compute the increment of value added (or subtracted) since that time. The standard equation for TASP is as follows:

TASP = PREVIOUS SELLING PRICE + INCREMENTAL VALUE

Where incremental value equals number of months interval x TASP adjustment factor X the previous sale amount.

**RESIDENTIAL PROPERTIES CATEGORY**

For residential properties, the three market approaches to estimating market value are similar in that they each depend upon measured relationships between property data and sales data. They are different, however, in their specific focus, and accordingly, one market approach may be more appropriate than another, depending upon the information and situation. For example, TASP may be an excellent market approach technique when the subject property has recently sold. Also, MRA via the analysis of sales of properties similar to the individual property being appraised may produce better results than MRA against a mixed group of sold properties.

**CALIBRATING THE SALES COMPARISON MODEL**

**Determining Adjustment Amounts**

During model specification, the appraiser determines the significant attributes and the relationships among the attributes. The adjustment amounts (coefficients) are determined during model calibration. Paired sales analysis, multiple regression analysis, adaptive estimation procedure, and the cost method are often used to calibrate sales comparison models.

**Paired Sales**

Paired sales analysis is the foundation of single-property appraisal by the sales comparison approach. Paired sales analysis requires that sales properties be identical in all attributes except the attribute being measured or that adjustments have already been made for the other attributes. The assessor compares these sales and isolates the value contribution for the desired attribute.

Calibrating with paired sales analysis is usually impractical in mass appraisal because it is difficult to find sales that meet the above narrow conditions. Even more unreasonable is the expectation that sales are available to measure all the attributes needed in the sales comparison approach. In addition, it is difficult, if not impossible, to determine rates of change using this method, such as when the contribution for additional square feet decreases as the size of the property increases. However, paired sales analysis can be useful when many homogeneous sales are available; for example, in some residential neighborhoods (condominiums are one example), it can be used to determine both time and attribute adjustments.

An analysis of re-sales using paired sales analysis is one method of determining time adjustments. It is necessary to use properties that have had no changes between the sale dates. The steps are:

1. List the sales
2. Calculate the percent change between the first sale price and the resale price
3. Divide the percent change by the number of months
4. Estimate a time adjustment from the results.

As with any data, the level of confidence in the estimate is a function of the recency, amount, variance, and reliability of the data. Proper functional fit to a well-specified model is also essential to good estimates.

When an adequate volume of sales is available, the appraiser can use paired sales to estimate qualitative and quantitative adjustments. Again, the analysis requires that attributes other than the one being measured remain constant. This process differs from estimating the time adjustment because re-sales are not required (sales should occur at the same time or have already been adjusted for time). In paired sales analysis, the appraiser must determine benchmark properties for measurement purposes. The paired sales method can be used for any adjustment including size, style, garage, basement, or location. The greater the number of sales, the greater the level of confidence in the adjustments.

# MASS APPRAISAL

**INTRODUCTION**

In preceding sections, the fundamental concepts, principles, and valuation techniques underlying the appraisal process has been outlined. The task is to reappraise all real property within Orange County via a systematic mass appraisal program, with the goals of producing appraisal results that yield valid, accurate, and equitable property valuations at a reasonable cost, as dictated by budgetary limitations, and within a time span compatible with administrative needs.

The key elements of the program are validity, accuracy, equity, economy, and efficiency. To be effective, the program must:

- incorporate the application of proven and professionally acceptable techniques and procedures;
- provide for the compilation of complete and accurate data and the processing of that data into an indication of value approximating the prices actually being paid in the market place as of the effective assessment date;
- provide the necessary standardization measures and quality controls essential to promoting and maintaining uniformity throughout the jurisdiction;
- provide the appropriate production controls necessary to execute each phase of the operation in accordance with a carefully planned budget and work schedule; and
- provide techniques especially designed to streamline each phase of the operation, eliminating superfluous functions, and reducing the complexities inherent in the appraisal process to more simplified but equally effective procedures.

In summary, the objective of an individual fee appraisal is to arrive at an opinion of value, the key elements being the validity of the approach and the accuracy of the estimate. The objective of a mass appraisal for tax purposes is essentially the same. However, in addition to being valid and accurate, the value of each property must be equitable to that of each other property, and what's more, these valid, accurate, and equitable valuations must be generated as economically and efficiently as possible.

**OVERVIEW**

The primary objective of mass appraisals for tax purposes is to equalize property values. Not only must the value of one residential property be equalized with another, but it must also be equalized with each agricultural, commercial, and industrial property within the County.

The common denominator and the basis for equalization is market value, set forth by N.C.G.S. 105-283 as the Uniform Appraisal Standard, as follows:

> "**All property, real and personal, shall as far as practicable be appraised or valued at its true value in money. When used in this Subchapter, the words "true value" shall be interpreted as meaning market value, that is, the price estimated in terms of money at which the property would change hands between a willing and financially able buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of all the uses to which the property is adapted and for which it is capable of being used. For the purposes of this section, the acquisition of an interest in**

**land by an entity having the power of eminent domain with respect to the interest acquired shall not be considered competent evidence of the true value in money of comparable land"**.

The job of the appraiser is to arrive at a reasonable estimate of value. To accomplish this, the coordination of approaches to the valuation of various classes of property must be made relative to one another as to reflect the motives of the prospective buyers and sellers of each property type.

The prospective buyer of commercial property is primarily interested in the potential net return and possible tax shelter the property will provide. Ideally, the property must return the investment made by the purchase price and provide a return on that investment. Real estate, as an investment, not only must compete with other real estate, but also with stocks, bonds, annuities, and other similar investment areas. The commercial appraiser must explore the rental market and compare the income-producing capabilities of one property to another.

The prospective buyer of industrial property is primarily interested in the overall utility value of the property. Of course, in evaluating the overall utility, individual consideration must be given to the land and each improvement thereon. Industrial buildings are generally of special purpose design, and often, cannot readily be divorced from the operation for which they were built. As long as the operation remains effective, the building will hold its value. However, if the operation becomes obsolete, the building likewise will become obsolete. The upper limit is its replacement cost new, and its current value is a measure of its current usefulness relative to the purpose for which it was originally designed.

Any effective approach to value for ad valorem tax purposes must be patterned in such a way as to reflect the typical motivation of buyers in the market place. As indicated above, the motives influencing prospective buyers tend to differ depending upon the type of property involved. It follows that the appraiser's approach to value must differ accordingly.

The commercial appraiser will find that since commercial property is not bought and sold as frequently as is residential property, the sales market will likely not be readily established. By relying heavily on the income approach to value, the net economic rent which the property is capable of yielding can be determined, and the amount of investment required to affect that net return at a rate commensurate with that normally expected by investors, can also be determined. This can only be achieved through a comprehensive study of the income-producing capabilities of comparable properties and an analysis of present-day investment practices.

The industrial appraiser will not be able to rely on the market data approach because of the absence of comparable sales, each sale generally reflecting different circumstances and conditions. Also, it is not possible to rely upon the income approach. Again, most industrial property is owner-occupied and it is difficult to accurately determine the contribution of each building unit to the overall income produced. There is also an absence of comparable investments. Therefore, ad-valorem appraisals typically rely heavily on the cost approach, requiring careful estimates in the loss of value resulting from physical, functional and economic factors.

The fact that there are different approaches to value, some of which are more applicable to one class of property than to another, does not, by any means, preclude equalization between classes. Remember that the objective in each approach is to arrive at a price which a well-informed buyer, fully aware of the existence of competing properties and not being compelled to act, is justified in paying for any one particular property. Underlying and fundamental to each of the approaches is the comparison process. Regardless of whether the principal criteria are actual selling prices, income-producing capabilities, or functional usefulness, like properties must be treated alike.

The primary objective is equalization; the equitable distribution of the tax burden. The various approaches to value, although valid in themselves, must nevertheless be coordinated one to the other in such a way as to produce values which are not only valid and accurate, but are also equitable. The same "yardstick" of values must be applied to all properties, and must be applied by uniform procedures.

It is obvious that sales on all properties are not required to effectively apply the market data approach. The same is true regarding any other approach. What is needed is a comprehensive record of all the significant physical and economic characteristics of each property in order to compare the properties of unknown values with the properties of known values. All significant differences between properties must in some measure, either positively or negatively, be reflected in the final estimate of value.

Each property must be given individual treatment, but the treatment must be uniform and standardized, and essentially no different than that given to any other property. All the factors affecting value must be analyzed and evaluated for each and every property within the County. It is only by doing this that equalization between properties and between classes of properties can be ultimately realized.

All this, at best, is an oversimplification of the equalization process underlying the entire Mass Appraisal Program. The program itself consists of various operational phases, and its success depends primarily upon the systematic coordination of collecting and recording data, analyzing the data, and processing the data to an indication of value.

**DATA INVENTORY**

Basic to the appraisal process is the collecting and recording of pertinent data. The data will consist of general supporting data – that data required to develop the elements essential to the valuation process; neighborhood data – information regarding pre-delineated neighborhood units; and specific property data – property characteristics compiled for each parcel of property. All the resulting information will be processed into an indication of value by the cost, market and/or income approach.

The data must be comprehensive enough to allow for the adequate consideration of all factors which significantly affect property values. In keeping with the economics of a mass appraisal program, it is costly and impractical to collect, maintain, and process data of no or marginal contribution to the desired objectives. Appraisers, if given the choice, would generally opt for too much data. What is more important is having an appropriate amount of data, no more or no less than necessary to support and generate the necessary and defendable valuations.

- *General Supporting Data.* The appraisal staff will be primarily concerned with cost, sales and income data, but they will also find it necessary to research and compile general socioeconomic information pertaining to the entire political unit under appraisal. The information will serve to assist the staff during the analytical phase of the operation and should include, but not necessarily be limited to, population trends, prevailing geographical factors, primary transportation facilities, primary income sources, unemployment and income levels, institutional influences, the annual volume of new construction and ownership transfers, availability of vacant land, construction labor and material costs, preponderance of residential rentals, and the amount of residential vacancies.
- *Cost data* must be sufficient enough to develop or select and validate the pricing schedules and cost tables required to compute the replacement cost new of improvements needed to apply the cost approach to value.
- All data pertaining to the cost of total buildings in place should include the parcel identification number, property address, and date of completion, construction cost, name of builder, source of information, structural characteristics, and other information pertinent to analysis. Cost information may be recorded on the same form (unassigned property record card) used to record specific property data. The principal sources for obtaining cost data are builders, developers and cost handbooks such as Marshall & Swift. It is generally advisable to collect data in conjunction with new construction.
- *Sales data* must be sufficient enough to provide a representative sampling of comparable sales needed to apply the market data approach, to derive unit land values and depreciation indicators needed to apply the cost approach, and to derive gross rent multipliers and elements of the capitalization rate needed to apply the income approach.

  All sales data should include the parcel identification number, property classification code, month and year of age, selling price, source of information, i.e., buyer, seller, agent, or fee, and a reliable judgment as to whether or not the sale is representative of a true arm's length transaction. Sales data should be recorded on the same form (assigned property record card) used to record specific property data, and verified during the property-listing phase.

  The principal source for obtaining sales data is the Register of Deeds Office and the real estate transfer returns. Other sources may include developers, Realtors, lending institutions, and individual owners during the listing phase of the operation,

- *Income and expense data* must be sufficient enough to derive capitalization rates and accurate estimates of net income needed to apply the income approach. Income and expense data should include both general data regarding existing financial attitudes and practices, and specific data regarding the actual incomes and expenses realized by specific properties. The general data should include such information as equity return expectations, gross rentals, vacancy and operating cost expectations and trends, prevailing property management costs, and prevailing mortgage costs. Specific data should include the parcel identification number, property address (or building ID), source of information, the amount of equity, the mortgage and lease terms, and

an itemized account of the annual gross income, vacancy loss, and operating expenses for the most recent two-year period.

The general data should be documented in conjunction with the development of capitalization procedural guidelines. The specific data, since it is often considered confidential and not subject to public access, should be recorded on special forms, designed in such a way as to accommodate the property owner or agent thereof in submitting the required information. The forms should also have space reserved for the appraiser's analysis and calculations.

The principal sources for obtaining the general financial data are investors, lending institutions, and property managers. The primary sources for obtaining specific data are the individual property owners and/or tenants during the listing phase and the appeals phase of the reappraisal effort.

- *Neighborhood data.* At the earliest feasible time during the data inventory phase of the operation, and after a thorough consideration of the living environment and economic characteristics of the overall county, or any political sub-division thereof, the appraisal staff should delineate the larger jurisdictions into smaller neighborhood units, each exhibiting a high degree of homogeneity in residential amenities, land use, economic trends, and housing characteristics such as structural quality, age, and condition. The neighborhood delineation should be outlined on an index (or comparable) map and each assigned a Neighborhood Code (NBC), which when combined with the PIN system, will serve to uniquely identify it from other neighborhoods.

  Neighborhood data must be comprehensive enough to permit the adequate consideration of value-influencing factors to order to understand the variations in selling prices and income yields attributable to benefits arising from the location of one specific property as compared to another. The data should include the taxing district, the school district, the VCS number, special reasons for delineation (other than obvious physical and economic boundaries), and various neighborhood characteristics such as the type (urban, suburban, etc.), the predominant class (residential, commercial, etc.), the trend (whether it is declining, improving, or relatively stable), its accessibility to the central business district, shopping centers, interstate highways and primary transportation terminals, its housing characteristics, the estimated range of selling prices for residentially-improved properties, and a rating of its relative durability.

  All neighborhood data should be recorded on a specially designed form during the delineation phase. The existing property record card can serve in this capacity as it contains the current data on file.

- *Specific property data* must be comprehensive enough to provide the database needed to process the characteristics of each parcel into an indication of value, to generate the tax roll and related tax roll requirements, to generate other specified output, and to provide the assessing

officials with a permanent record to facilitate maintenance functions and to administer taxpayer assistance and appeal proceedings.

The data should include the parcel identification number, ownership and mailing address, legal description, property address, property classification code, local zoning code, neighborhood identification code, site characteristics, and structural characteristics.

All the data should be recorded on a single, specially designed property record card customized to meet individual assessing needs. Each card should be designed and formatted in such a way as to accommodate the listing of information and to facilitate data processing. In addition to the property data items noted above, space must be provided for a building sketch, land and building computations, summarization, and memoranda. In keeping with the economy and efficiency of a mass appraisal program, the card should be formatted to minimize writing by including a sufficient amount of site and structural descriptive data which can be checked and/or circled. The descriptive data should be comprehensive enough to be suitable for listing any type of land and improvement data regardless of class, with the possible exception of large industrial, institutional, and utility complexes which require lengthy descriptions. In these cases, it will generally be necessary to use a specially designed supplemental property record document, keyed and indexed to the corresponding property record card. The property record card should be made a permanent part of the assessing system, and used not only in conjunction with the revaluation, but also to update the property records for subsequent assessments.

The specific property data should be compiled from existing assessing records and field inspections. The parcel identification number, ownership, mailing address, and legal description may be obtained from existing tax rolls. Property classification codes may also be obtained from existing tax rolls, whenever available, and verified in the field. Local zoning codes may be obtained from existing zoning maps. Neighborhood identification codes may be obtained from the neighborhood delineation maps. Lot sizes and acreage may be obtained from existing tax maps. The property address, and the site and structural characteristics may be obtained by making a physical inspection of each property.

During the measuring and listing phase of the operation, the appraiser visits each property and tries to make personal contact with the occupant. In the course of the inspection, the following procedures must be adhered to:

- Verify the identification of the property (parcel ID or PIN).
- Verify the ownership (recording any transfers which may have occurred).
- Record or confirm the property's situs address.
- Verify the property classification and zoning codes.
- Interview the occupant of the building and record all pertinent economic data.
- Inspect the interior of the structures when permissible and record all pertinent physical data.

- Verify measurements and inspect the exterior of the building, as well as all other improvements on the property, and record the story height, and the dimensions and/or size of each.
- Record a sketch of the principal building(s), consisting of an overhead view showing the main portion of the structure along with any significant attached exterior features, such as porches, etc. All components must be identified and the exterior dimensions shown for each.
- Select and record the proper "grade" of the improvement (construction quality).
- Select and record the proper replacement costs and adjustments for all field-priced items.
- Review the property record card for completeness and accuracy.

After the field inspection is completed, the property record cards should be submitted to clerical personnel to review the cards for completeness, calculate the areas, and make any necessary mathematical extensions.

Complete and accurate data are essential to the program. Definite standardized data collection and recording procedures must be followed if these objectives are to be met.

**PROCESSING THE DATA**

This phase of the operation involves the analysis of data compiled during the data inventory phase and the processing of that data to an indication of value through the use of the cost, market, and income approaches to value.

During the analytical phase, it will be necessary to evaluate cost, market, and income data in order to provide a basis for validating the appropriate cost schedules and tables required to compute the replacement cost new of all buildings and structures; for establishing comparative unit land values for each class of property; for establishing the appropriate depreciation tables and guidelines for each class of property; and for developing gross rent multipliers, economic rent and operating expense norms, capitalization rate tables and other related standards and norms required to effect the mass appraisal of all the property within an entire political unit on an equitable basis.

After establishing the appropriate standards and norms, it is necessary to evaluate the specific data compiled for each property by giving due consideration to the factors influencing the value of that particular property as compared to another, and then to process the data into an indication of value by employing the techniques described in the section of the manual dealing with the application of the traditional approaches to value.

Any one, or all three of the approaches, if applied properly, should lead to an indication of market value. The primary concern is applying the approaches on an equitable basis. This requires the coordinated efforts of a number of individual appraisers, each acting as a member of a team, with the team effort directed toward a valid, accurate and equitable appraisal of each property within the County. Each property must be reviewed, during which time the following procedures must be adhered to:

- Verify the property characteristics recorded on the property record card.
- Confirm that the proper schedules and cost tables are used in computing the replacement cost of each building and structure.
- Confirm the determination of the proper quality grade is applied to each building to account for variations from the base specifications.
- Make an appraisal judgment of the overall condition, desirability, and usefulness of each improvement in order to arrive at a sound allowance for depreciation.
- If applicable, capitalize the net income capabilities into an indication of value in order to determine the loss of value attributable to functional and economic obsolescence.
- Confirm that the depreciated value of all improvements has been added to the land value, and review the total property value relative to the value of comparable properties.
- Confirm that the property value established can be correlated to actual comparable sales.

Once the final values have been established for each property, the entire program should be evaluated in terms of its primary objectives; do the values reflect a satisfactory level of market value, and what's more important, are the values equitable? Satisfactory answers to these questions can best be obtained through an analysis of recent sales in an assessment/sales ratio study, if sufficient sales are available.

To perform the study, it is necessary to take a representative sampling of recent valid sales and compute the assessment-to-sale ratio for each of the sales. If the sample is representative, the computed median assessment-to-sale ratio will give an indication of how close the appraisals within each district approximate the market value. This is providing, of course, that the sales included represent true market transactions. It is then needed to determine the deviation of each individual appraisal-to-sale ratio from the median ratio, and to compute either the average or the standard deviation, which will give an indication of the degree of equity within each individual district. What remains then is to compare the statistical measures across property classes in order to determine those areas, if any, which need to be further investigated, revising the appraisal, if necessary, to attain a satisfactory level of value and equity throughout the entire jurisdiction.

The techniques and procedures set forth herein, if applied skillfully, should yield highly accurate and equitable property valuations, and should provide a sound property tax base. It should be noted, however, that no program, regardless of how skillfully administered, can ever be expected to be error free. The appraisal must be fine-tuned and can best be done by giving the taxpayer an opportunity to question the value placed upon his or her property and to produce evidence that the value is inaccurate or unequitable. During this time, the significant errors will be brought to light, and taking the proper corrective action will serve to further the objectives of the program. What's important in the final analysis is to use all these measures and other resources available to assure the highest degree of accuracy and equity possible.

# LAND APPRAISAL

**INTRODUCTION**

The sales comparison approach is the most applicable method for the valuation of land. The income approach may be considered for properties for which sufficient sale data is not available for vacant parcels. As often happens in downtown areas and older subdivisions where no vacant parcels remain, value may be estimated using a land residual approach as detailed in the Income Valuation section.

Land value is generally estimated by comparing the subject property to similar properties that have recently sold, making adjustments to the comparable for the different factors affecting land value. Some of the factors which must be considered include: location, size, shape, topography, accessibility, present use, highest and best use, zoning, utilities, income to the land, supply and demand for the particular type land, improvements to the land and improvements on the land. Irrigation, drainage, sidewalks, curbs, gutter, etc. are examples of improvements to the land and are included in the value of the land. Building structures are improvements on the land and with few exceptions, some condominium or cooperative buildings, may be valued apart from the land.

**LAND APPRAISAL PROCEDURES**

**Verifying Neighborhood Boundaries**

This is accomplished by examining existing neighborhood boundaries in order to determine whether they encompass properties affected by the same economic factors. Neighborhood boundaries consist of a) physical boundaries, such as thoroughfares, streams, railroad right-of-ways, etc., b) uniform land-use controls, such as zoning districts, or c) relatively homogenous types of properties. Generally speaking, appraisers identify and delineate those populations of properties that share similar geographic, economic, legal and physical attributes.

**Establishing a Base Lot Value**

Appraisers begin by analyzing homogenous subdivision neighborhoods. These areas usually have more current sales data to rely on, making this process relatively efficient. By choosing to work these first, appraisers familiarize themselves with the process, which allows them the opportunity to retain helpful ideas that will assist in working more difficult neighborhoods later.

Appraisers use three primary methods to arrive at base site rates by neighborhood:

*Direct sales comparison approach*

This is the preferred method of estimating base lot rates when there are sufficient market sales of existing lots available for analysis. Appraisers search for arms-length sales of typical lots within a neighborhood to determine the base lot value. As part of this analysis, the appraiser should be able to determine if the neighborhood's building lots represent similar values regardless of small differences in size, location, topography, etc., or if the lot should be valued via a method that attributes values to value-driving factors. An important note with this valuation method is that an appraiser may use sales of similar properties that are outside the subject neighborhood as well. When a sale outside the subject neighborhood is used, it may be adjusted for amenities, etc. that differ from the subject neighborhood.

*Abstraction (land residual) method*

This methodology is used in neighborhoods where there not a sufficient number of vacant sales to utilize a direct sales comparison approach. Appraisers examine newer construction sales and subtract the depreciated cost value of the improvements to arrive at a residual land value.

*Allocation method*

Where neither sufficient vacant sales nor newer construction sales exist, the allocation method is available for determining the base lot rate. Sales data can be obtained from other, similar neighborhoods that are nearby the subject neighborhood. They should contain similar styles, ages and price ranges of homes. The understanding is that these neighborhoods are competing with the subject neighborhood for the same pool of buyers in the marketplace. Relying on current sales data from the comparable neighborhood(s), appraisers establish typical land/building ratios, which are then be applied to the subject neighborhood to help arrive at new base lot rate.

For a majority of residential neighborhoods the primary land unit type will be a lot, and most parcels in the neighborhood are appraised on a per lot basis. For some of the neighborhoods, particularly the rural areas, an acreage unit type may be needed as well. In those cases size adjustment curves may be applied.

**Reviewing LUC's (Land Use Codes) and Influence Codes**

Appraisers run the "Land Line Detail by NBHD" report in order to review all the data related to this step. This report is useful because it contains Land Use Codes (LUC), Neighborhood Codes (NBC), base pricing rates, percentage influence codes, current vs. previous land value calculation, and the percentage change in site values. These reports are edited manually and used to update AssessPro.

**Quality Control Measures**

A "Current vs. Previous by NBHD" report is run for all neighborhoods, focusing on land when the report asks for a previous value to refer to. This report can be used to search for outliers, i.e. those parcels that decreased in land value or those parcels that increased by an amount other than what would be considered normal for that particular neighborhood.

**THE BASE PRICE METHOD**

The Base Price Method is a sound methodology when utilizing the neighborhood concept for different locations within the jurisdiction being appraised. Land values may change when properties have different factors such as road frontage, public utilities, road types and tract size.

The following is a description of how these factors could affect each parcel of land:

**Location**

Location is a key factor in the determination of market value in the County. Depending on market demand and sales prices, location areas were established throughout the County. Within each base price area other location factors may be applied to a given parcel. The concept of neighborhood homogeneity may tend to fluctuate values as the parcel comes more under the influence of the neighborhood and less under the influence of the total base area.

Desirable subdivisions, availability of water and sewer, proximity to activities, higher base price areas and the existence of amenities are factors which tend to increase market demand. The inverse may be true for parcels near a declining subdivision or undesirable area. These influences must be determined and adjusted on an individual bases by the appraiser.

**Size**

The size of a parcel could play a role in determining the per acre price at which a parcel of land will sell. Because of diminishing marginal utility, the total price asked for a parcel of land has an indirect correlation with the number of potential buyers in the market. This situation stimulates more price negotiation and longer turnover periods for large tracts. Consequently, the actual cash value per acre decreases as the size of the parcel increases. The value of small lots containing less than one acre depends greatly on zoning and other restrictions.

**Topography**

Land considered usable but suffering from rough topography may need further adjustment in order to achieve market value. Rough topography may increase the development and building costs required to gain the optimum use from a parcel of land. The usable land on each parcel must be looked at as a whole and adjustments applied as indicated by comparable sales.

Certain tracts of land in Orange County have problems with percolation. Adjustments to the land value will be made only when the property owner's request is accompanied by evidence, such as a rejection certificate from the Environmental Health Department. Such parcels should be assigned an influence code "PERC" (No Perc). The extent of the adjustment provided may depend on a number of factors including parcel size, useable area, etc.

**Shape**

Shape may affect the utility of a specific parcel. The appraiser determines what is unusable and to what extent it affects the value of the subject parcel.

**Easements**

Surface easements governing power, natural gas and petroleum rights of way may have varying effects on each parcel. The appraiser may apply the "E" (Easement) influence code to factor the base unit price according to market-extracted data. The extent of the liability and the impact on value is based mainly on the easement's location within the parcel.

**LAND UNIT TYPES**

| *Code* | *Description* | *Full Description* | *InterreslUnitType* | *Conversion* |
|---|---|---|---|---|
| A | Homesite A | Homesite A | NULL | NULL |
| AA | Altavista | Altavista | SF | *43560 |
| AC | Acres | Acres | SF | *43560 |
| AC_9 | Acres Type 9 | TYPE 9 METHOD A | SF | *43560 |
| APB | Appling | Appling | SF | *43560 |
| APC | Appling | Appling | SF | *43560 |
| C_AC | Com Acres | Com Acres | SF | *43560 |
| CFB | Cecil | Cecil | SF | *43560 |
| CFC | Cecil | Cecil | SF | *43560 |
| CH | Chewacla | Chewacla | SF | *43560 |
| CP | Congaree | Congaree | SF | *43560 |
| CRB | Creedmoor | Creedmoor | SF | *43560 |
| ENB | Enon | Enon | SF | *43560 |
| ENC | Enon | Enon | SF | *43560 |
| FD | Fut Dev | Future Development | SF | *43560 |
| FF | Front Ft | Front Ft | NULL | NULL |
| G | Homesite G | Homesite G | NULL | NULL |
| GC1 | Golf View Lt | Golf View Lot | NULL | NULL |
| GC2 | Golf Non Vw | Golf Non View Lot | NULL | NULL |
| GEB | Georgeville | Georgeville | SF | *43560 |
| GEC | Georgeville | Georgeville | SF | *43560 |
| GHC | Georgeville | Georgeville | SF | *43560 |
| GLD | Goldstron | Goldstron | SF | *43560 |
| GLF | Goldstron | Goldstron | SF | *43560 |
| HEB | Helena | Helena | SF | *43560 |
| HHA | Helena | Helena | SF | *43560 |
| HMOA | HMO Com Area | HMO Com Area | NULL | NULL |
| HRB | Herndon | Herndon | SF | *43560 |
| HRC | Herndon | Herndon | SF | *43560 |
| HWB | Hiwassee | Hiwassee | SF | *43560 |
| HWC | Hiwassee | Hiwassee | SF | *43560 |
| I_AC | Industrial | Ind Acres | SF | *43560 |
| IRB | Iredell | Iredell | SF | *43560 |
| LG | Lignum | Lignum | SF | *43560 |
| LK | LAKE | LAKE | NULL | NULL |
| Code | Description | Full Description | InterreslUnitType | Conversion |
| LOC | Louisburg | Louisburg | SF | *43560 |
| LOF | Louisburg | Louisburg | SF | *43560 |
| LOT | Lot | Lot | NULL | NULL |

| | | | | |
|---|---|---|---|---|
| OR | Orange | Orange | SF | *43560 |
| P | Homesite P | Homesite P | NULL | NULL |
| SF | Square Ft | Square Ft | AC | /43560 |
| TAD | Tatum | Tatum | SF | *43560 |
| TAE | Tatum | Tatum | SF | *43560 |
| VAB | Vance | Vance | SF | *43560 |
| WMD | Wedowee | Wedowee | SF | *43560 |
| WME | Wedowee | Wedowee | SF | *43560 |
| WSB | White Store | White Store | SF | *43560 |
| WXD | Wilkes | Wilkes | SF | *43560 |
| WXF | Wilkes | Wilkes | SF | *43560 |

**FACTORS DETERMINING BASE ACREAGE VALUES**

1. **Location of Property**
    a. Relation of the tract to high or low urban, commercial, or industrial development areas, or to farming and rural areas
    b. Proximity to cities, towns, schools, and churches c. Access to roads and highways
    d. Proximity to recreational facilities
    e. Overall desirability
2. **Land Characteristics**
    a. Topography (level or rolling, high or low)
    b. Physical Characteristics
        i. Open land (cultivated, pasture, orchards)
        ii. Woodland
        iii. Wasteland (swamps, gullies, floodplain)
        iv. Ponds
3. **Market Value**
    a. Actual, qualified sales prices of comparable properties
    b. Highest and best use
    c. Supply and demand
4. **Size and Shape of Tract**
    a. The shape of the tract can have a positive or negative effect on value.
    b. Depending upon market reaction, acreage often sells for less per acre as the size of the tract increases, with all other amenities being the same. In other situations, acreage tracts may sell for more per acre as the size of the tract increases. This is often the case in areas experiencing high levels of development activity. The higher price per acre is primarily attributed to the reduction in time and money spent by a developer compared to assembling many separate tracts to achieve comparable development potential.

A most important note is that the base values listed in this section can be further modified to account for atypical conditions. For example, a property that has been determined to be non-buildable may

have a base price per acre of $20,000, but an Influence Factor would be needed to account for its non-buildable status to reduce the price per acre. Similarly, a lakefront lot may be adjusted through the use of a Land Factor or Influence Factor to capture the additional value of being lakefront, which would be in addition to the base price per acres.

**SCHEDULE FOR RURUAL LAND**

Basis: No relative convenience to towns. Few or no roads. No development activity in immediate area.
$1,000 to $100,000 per acre

Basis: No relative convenience to towns. Average or few roads. Minimum development in immediate area.
$5,000 to $250,000 per acre.

Basis: Convenience to towns. Adequate or average roads. Some development in immediate area.
$10,000 to $500,000 per acre.

Note: Wasteland will have the same base price per acre as surrounding land. The per acre rate is subject to an Influence Factor based on market and economic analysis. The presence of public utilities and market and economic indicators should weigh into any decision to condition the land. Ponds will usually fall into the same category as surrounding land.

**SCHEDULE FOR RURAL RESIDENTIAL DEVELOPMENT AREAS**

Basis: Average developed area away from metropolitan area with good roads and tertiary desirability.
$10,000 to $200,000 per acre.

Basis: Good development area near metropolitan area with major highways and secondary desirability.
$20,000 to $750,000 per acre.

Basis: Highest development area adjacent to metropolitan area with major highways and primary desirability.
$30,000 to $1,000,000 per acre.

**SCHEDULE FOR RURAL RESIDENTIAL HOMESITES**

Basis: Primary Development Areas

$20,000 to $2,000,000

Basis: Secondary Development Areas
$10,000 to $1,000,000

Note: Rural home sites may in some cases be valued on a per building site basis

**URBAN LAND SCHEDULE**

Basis: Residential Acreage
$5,000 to $2,000,000 per acre

Basis: Residential Lots
$2,000 to $5,000,000 per lot

Basis: Commercial
$0.10 to $500.00 per square foot

Basis: Shopping Centers
$40,000 to $5,000,000 per acre, improved
$5,000 to $3,500,000 per acre, unimproved

Basis: Office & Institutional
$40,000 to $10,000,000 per acre

Basis: Apartment Complexes
$4,000 to $200,000 per unit, improved
$40,000 to $4,000,000 per acre, unimproved

# PRESENT-USE VALUE SCHEDULES

**2021 PRESENT USE VALUE SCHEDULE**

| Soil Type | Symbol | Agriculture | Forestry | Horticulture |
|---|---|---|---|---|
| Altavista | Aa | 645 | 252 | 890 |
| Appling | ApB | 645 | 252 | 890 |
| Appling | ApC | 645 | 252 | 890 |
| Cecil | CfB | 645 | 252 | 890 |
| Cecil | CfC | 645 | 252 | 890 |
| Chewacla | Ch | 645 | 252 | 890 |
| Congaree | Cp | 645 | 252 | 890 |
| Creedmoor | CrB | 645 | 252 | 890 |
| Enon | EnB | 645 | 252 | 890 |
| Enon | EnC | 645 | 252 | 890 |
| Georgeville | GeB | 645 | 252 | 890 |
| Georgeville | GeC | 645 | 252 | 890 |
| Georgeville | GhC | 645 | 252 | 890 |
| Goldston | GlD | 645 | 252 | 890 |
| Goldston | GlF | 645 | 252 | 890 |
| Helena | HeB | 645 | 252 | 890 |
| Helena | HhA | 645 | 252 | 890 |
| Herndon | HrB | 645 | 252 | 890 |
| Herndon | HrC | 645 | 252 | 890 |
| Hiwassee | HwB | 645 | 252 | 890 |
| Hiwassee | HwC | 645 | 252 | 890 |
| Iredell | IrB | 645 | 252 | 890 |
| Lignum | Lg | 645 | 252 | 890 |
| Louisburg | LoC | 645 | 252 | 890 |
| Louisburg | LoF | 645 | 252 | 890 |
| Orange | Or | 645 | 252 | 890 |
| Tatum | TaD | 645 | 252 | 890 |
| Tatum | TaE | 645 | 252 | 890 |
| Vance | VaB | 645 | 252 | 890 |
| Wedowee | WmD | 645 | 252 | 890 |
| Wedowee | WmE | 645 | 252 | 890 |
| White Store | WsB | 645 | 252 | 890 |
| Wilkes | WxD | 645 | 252 | 890 |
| Wilkes | WxF | 645 | 252 | 890 |

# 2021 USE-VALUE MANUAL

# FOR AGRICULTURAL, HORTICULTURAL AND FOREST LAND

## (Selected Applicable Excerpts with Orange County Notations)

**(Complete Document:** https://www.ncdor.gov/news/reports-and-statistics/use-value-manual-agricultural-horticultural-and-forest-land

April 2020

North Carolina Use-Value Advisory Board North Carolina Department of Revenue Raleigh, North Carolina

**FOREWARD**

When originally enacted in 1973, the objective of the present-use value program was to keep "the family farm in the hands of the farming family." By the early 1970's, North Carolina had become a prime site for industrial and commercial companies to relocate because of its plentiful and reliable work force. With this growth came other improvements to the State's infrastructure to accommodate this growth, such as new and larger road systems, more residential subdivisions, and new industrial and commercial developments. The land on which to build these improvements came primarily from one source: farmland. As the demand for this land skyrocketed, so did its price as well as its assessed value, as counties changed from a fractional assessment to a market value system. Farmers who owned land near these sites soon could not afford the increase in property values and sought relief from the General Assembly.

In response, the General Assembly passed legislation known as the Present-Use Value program. As originally enacted, the basic tenets of this program were that only individuals who lived on the land for which they were applying could immediately qualify and that the land had to have a highest and best use as agriculture, horticulture or forest land. Land might also have qualified if the farmer owned it for seven years. Passage of this law eased the financial burden of most farmers and eliminated to some degree the "sticker shock" of the new property tax values. From that time until the mid-1980's, the present-use value schedules were based on farmer-to-farmer sales, and quite often the market value schedules were very similar to the present use schedules, especially in the more rural areas.

Virtually every session of the General Assembly has seen new changes to the law, causing a constant rethinking as to how the law is to be administered. The mid-1980's saw several court cases that aided in this transformation. Among the legislative changes that resulted from these cases were the use of soil productivity to determine value, the use of a 9% capitalization rate, and the utilization of the "unit concept" to bring smaller tracts under the present use value guidelines.

Through the years the General Assembly has expanded the present-use value program to include new types of ownership such as business entities, tenants in common, trusts, and testamentary trusts. Legislation also expanded the definition of a relative. More recent legislation has established cash rents as the basis for determining present-use value for agricultural and horticultural land, while retaining the net income basis for determining present-use value for forestland.

This Use-Value Advisory Board Manual is published yearly to communicate the UVAB recommended present-use value rates and to explain the methodology used in establishing the recommended rates.

**USE-VALUE ADVISORY BOARD MANUAL**

Following are explanations of the major components of this manual.

## I. Cash Rents

Beginning in 1985, the basis for determining present-use value for agricultural land was based on the soil productivity for growing corn and soybeans. At that time, corn and soybeans were considered the predominant crops in the state. Over time, fewer and fewer acres went into the production of corn and soybeans and the land used for these crops tended to be lower quality. As a result, both the productivity and value of these crops plummeted, thus resulting in lower present-use values. A viable alternative was sought to replace corn and soybeans as the basis for present-use value. Following a 1998 study by North Carolina State University, cash rents for agricultural and horticultural land were determined to be the preferred alternative. Cash rents are a very good indicator of net income, which can be converted into a value using an appropriate capitalization rate.

The General Assembly passed legislation that established cash rents as the required method for determining the recommended present-use values for agricultural and horticultural land. The cash rents data from the NCSU study served as the basis for determining present-use value for the 2004-2007 UVAB manuals. However, starting in 2006, funding became available for the North Carolina Department of Agriculture to perform an extensive statewide cash rents survey on a yearly basis. The 2006 survey became the basis for the 2008 UVAB recommended values,

and this process will continue forward until changes dictate otherwise (i.e. the 2007 survey is used to establish the 2009 UVAB values, etc).

Forestland does not lend itself well to cash rents analysis and continues to be valued using the net income from actual production.

## II. Soil Types and Soil Classification

The 1985 legislation divided the state using the six Major Land Resource Areas (MLRAs). Five different classes of productive soils and one non-productive soil class for each MLRA were determined. Each class was identified by its net income according to type: agriculture, horticulture and forestry. The net income was then divided by a 9% capitalization rate to determine the present-use value. For 2004 and forward, the following change has taken place. For agricultural and horticultural classifications, the five different soil classes have been reduced to three soil classes and one non-productive soil class. Forestland present-use value has kept the five soil classes and one non-productive soil class. The use of the six MLRAs has been retained.

The six MLRAs are as follows:

| | |
|---|---|
| MLRA 130 | Mountains |
| MLRA 133A | Upper Coastal Plain |
| MLRA 136 | Piedmont (Orange County) |
| MLRA 137 | Sandhills |
| MLRA 153A | Lower Coastal Plains |
| MLRA 153B | Tidewater |

The soils are listed in this manual according to the MLRA in which they occur. They are then further broken down into their productivity for each of the three types of use: agriculture, horticulture and forestry. Every soil listed in each of the MLRAs is ranked by its productivity into four classes (with the exception of forestry which retained its previous six classes). The classes for agricultural and horticultural land are as follows:

| | |
|---|---|
| CLASS I | Best Soils |
| CLASS II | Average Soils |
| CLASS III | Fair Soils |
| CLASS IV | Non-Productive Soils |

It should be noted that, in some soil types, all the various slopes of that soil have the same productivity class for each of the usages, and therefore for the sake of brevity, the word "ALL" is listed to combine these soils. Each of the classes set up by the UVAB soils subcommittee corresponds to a cash rent income established by the most recent cash rents survey conducted by the North Carolina Department of Agriculture. This rent income is then capitalized by a rate established each year by the UVAB (see below). The criteria for establishing present-use value for forestry have remained basically unchanged from previous years due to the quantity and quality of information already available.

**III. Capitalization Rate**

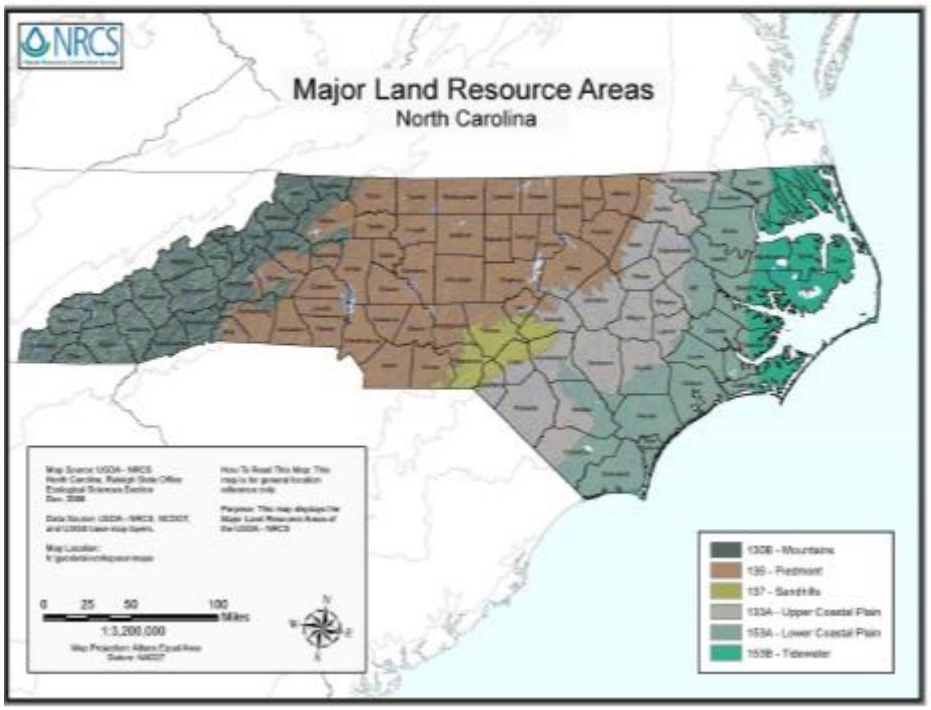
The capitalization rate mandated by the 1985 legislation for all types of present-use value land was 9%. The 1998 study by NCSU strongly indicated that a lower capitalization rate for agricultural and horticultural land was more in line with current sales and rental information. The
2002 legislation mandated a rate between 6%-7% for agricultural and horticultural land.

For the year 2004 and the subsequent years, the UVAB has set the capitalization rate at 6.5% for agricultural and horticultural land.

The capitalization rate for forestland continues to be fixed at 9% as mandated by the statutes.

**IV. Other Issues**

The value for the best agricultural land can be no higher than $1,200 an acre for any MLRA.



# PRESENT-USE VALUE SCHEDULES

## AGRICULTURAL RENTS

| MLRA | BEST | AVERAGE | FAIR |
|---|---|---|---|
| 130 | 90.30 | 54.30 | 35.50 |
| 133A | 82.15 | 58.30 | 43.65 |
| 136 | 61.80 | 42.10 | 27.35 |
| 137 | 67.50 | 47.30 | 32.20 |
| 153A | 77.10 | 56.10 | 42.20 |
| 153B | 103.95 | 70.70 | 53.00 |

## AGRICULTURAL SCHEDULE

| MLRA | CLASS I | CLASS II | CLASS III |
|---|---|---|---|
| 130 | $1,200* | $835 | $545 |
| 133A | $1,200* | $895 | $670 |
| 136 | $950 | $645 | $420 |
| 137 | $1,035 | $725 | $495 |
| 153A | $1,185 | $860 | $645 |
| 153B | $1,200* | $1,085 | $815 |

**HORTICULTURAL SCHEDULE**

All horticultural crops requiring more than one growing season between planting or setting out and harvest, such as Christmas trees, ornamental shrubs and nursery stock, apple and peach orchards, grapes, blueberries, strawberries, sod and other similar horticultural crops should be classified as horticulture regardless of location in the state.

**HORTICULTURAL RENTS**

| MLRA | BEST | AVERAGE | FAIR |
|---|---|---|---|
| 130 | 161.70 | 111.10 | 72.90 |
| 133A | 99.10 | 68.40 | 52.25 |
| 136 | 89.20 | 58.05 | 40.15 |
| 137 | 84.35 | 56.85 | 37.70 |
| 153A | 93.80 | 58.15 | 44.40 |
| 153B | 122.40 | 92.80 | 84.35 |

**HORTICULTURAL SCHEDULE**

| MLRA | CLASS I | CLASS II | CLASS III |
|---|---|---|---|
| 130 | $2,485 | $1,705 | $1,120 |
| 133A | $1,520 | $1,050 | $803 |
| 136 | $1,370 | $890 | $615 |
| 137 | $1,295 | $870 | $580 |
| 153A | $1,440 | $890 | $680 |
| 153B | $1,880 | $1,425 | $1,295 |

**FORESTLAND NET PRESENT VALUES**

## FORESTLAND NET PRESENT VALUES

| MLRA | Class I | Class II | Class III | Class IV | Class V |
|---|---|---|---|---|---|
| 130 | $29.59 | $20.66 | $6.67 | $4.27 | $2.47 |
| 133A | $28.51 | $22.20 | $18.45 | $7.13 | $4.93 |
| 136 | $32.81 | $23.02 | $22.72 | $14.78 | $9.87 |
| 137 | $35.42 | $23.67 | $23.02 | $7.76 | $2.99 |
| 153A | $28.51 | $22.20 | $18.45 | $7.13 | $4.93 |
| 153B | $23.05 | $18.45 | $17.37 | $7.13 | $4.93 |

## FORESTLAND SCHEDULE

| MLRA | Class I | Class II | Class III | Class IV | Class V |
|---|---|---|---|---|---|
| 130 | $328 | $229 | $74 | $47 | $27 |
| 133A | $316 | $246 | $205 | $79 | $54 |
| 136 | $364 | $255 | $252 | $164 | $109 |
| 137 | $393 | $263 | $255 | $86 | $40 |
| 153A | $316 | $246 | $205 | $79 | $54 |
| 153B | $256 | $205 | $193 | $79 | $54 |

# CALCULATION OF SYSTEM VALUES

**LAND CALCULATION:**

The land calculation is based primarily upon values entered in the Land Data screen, and the Land Price Data Calculation Table, as well as on factors in the descriptive tables. The land calculation is complex. Here it is broken down step by step. In the next section there is an example with screenshots from AssessPro that will walk the user through the entire calculation.

**A. NOTE THE CHARACTERISTICS OF YOUR PARCEL FROM THE LAND DATA SCREEN.**

1. Go to the Land Data Screen.
2. Note the Neighborhood code for the parcel to be calculated.

   Neighborhood code: _____

3. Note the Unit Type being used to measure the parcel.

   Unit Type: _____

4. Note the Number of Units for the parcel.

   Number of Units: _____

**B. CALCULATE YOUR LAND INTERVAL SIZES:**

1. Open the Land Price Data Calculation Table.
2. Select the Neighborhood code for the parcel to be calculated in the Neighborhoods list box on the left.
3. Select the Unit Type from the Unit Types Priced list in the Land Price Data Calculation Table.
4. Interval 1: The first interval Range field is the top range listed in the bottom of the Land Price Data table. If the Number of Units is greater than or equal to this number, then the interval 1 actual size is equal to the Range number. If the range given is less, then use the Number of Units as the interval 1 actual size. There will be no interval 2 or 3, so skip to section C.

   Interval 1 Actual size: _____

5. Interval 2: Interval 2 is calculated by first taking the total Number of Units and subtracting the number of units previously applied in Interval 1 (step 4). The second interval is the middle range listed. If the remaining Number of Units is greater than or equal to this number, then the interval 2 actual size is equal to the Range number. If less than the range given, then use the remaining Number of Units as the interval 2 actual size. There will not be an interval 3, so skip to section C.

   Interval 2 Actual size: _____

6. Interval 3: Interval 3 is first calculated by taking the total Number of Units and subtracting the number of units previously applied in Interval 1 and Interval 2 (steps 4 and 5). If there is more land than the range for interval 2 use the Number of Units as the interval 3 actual size.

   Interval 3 Actual size: _____

**C. APPLY THE SIZE ADJUSTMENT (SA) TO EACH LAND INTERVAL:**

1. The Standard Size Adjustment (SA) Formula is:

| **[(Standard Size/Actual Size) X (Curve %)] + (1- Curve %)** |
|---|

2. Apply this formula to each of the Intervals. Replace the Actual size with the Interval Actual Sizes listed above. The Curve % and Standard Size will be taken from the interval line on the Land Price Data Calculation Table.
3. Verify that the SA for each interval falls within the allowed range. If the Calculated SA for an interval is less than the value in the Min Factor field for that interval line, then the Min Factor will be the SA.
   If the Calculated SA for an interval is greater than the Max Factor field for that interval line, then note the Max Factor as the SA for that interval in the next step.

   If the Calculated SA is between the minimum allowed and the maximum allowed then the Calculated SA is the SA to be applied.
4. Note the SA for each interval.

   Interval 1 SA: _____

   Interval 2 SA: _____

   Interval 3 SA: _____

**D. FIND THE INTERVAL LAND VALUES:**

1. The Interval Value Formula is:

| **(Interval SA) X (Amount Per Unit) X (Units in Range) = Interval Land Value** |
|---|

2. Apply this formula to each of the Intervals. The Amount Per unit comes from the Land Price Data Calculation Table, Std $ / Unit field. Use the Interval SA from step C and the Interval Actual Size from step A. The Units in Range are the units that are specifically assigned to a range. For example, for interval 2 the Units in Range would be the number of units that are not accounted by in Interval 1 or 3. So, if the range for interval 2 starts at 5 acres and the range for interval 3 starts at 20 acres and there are more than 20 acres in this parcel, the Units in Range would be 15.

3. Note the Interval Land Value for each interval.

   Interval 1 Land Value: _____

   Interval 2 Land Value: _____

   Interval 3 Land Value: _____

Alternatively, and the most frequently used method to price land in Orange County, the Interval and other table values may be circumvented through the direct use of more-encompassing size adjustment tables. Orange County has defined a size adjustment table titled "SA 9" that can be found in the "Cost Schedules" section. Using this method, one locates the tract size on the table and finds the corresponding size adjustment factor. This factor is then applied to the base acreage price per acre to yield an appropriate size based price per acre that when applied to the overall size of the tract, yields a total value for the tract.

**E. CALCULATE LAND VALUE:**

1. The Total Land Value Formula is:

| **Interval 1 Land Value+ Interval 2 Land Value + Interval 3 Land Value + Base Value = Land Value** |
|---|

2. Use the Interval Land Values as noted above, and the Base Value that is in the Land Price Data Calculation Table.

**F. APPLY FACTORS:**

| **Land Value X Neighborhood Factor X LUC Factor X Neighborhood Modifier X Land Type Factor = Factored Land Value** |
|---|

1. Multiply the Land Value times the Land Factor on the Land Price Data Calculation Table. (This factor is displayed on the Land Data screen. It is labeled Neigh Factor)
2. Multiply the resulting Land Value times the Land Use Factor from the Land Factor Column of the Land Use Codes Descriptive table. (This factor is displayed on the Land Data screen. It is labeled LUC Factor)
3. Multiply the resulting Land Value times the Land Factor from the Neighborhood Modifiers Descriptive table. (This value is displayed on the Land Data screen next to the Neigh Mod field)
4. Multiply the resulting Land Value times the Index Value in the Land Types Descriptive table. (This value is displayed on the Land Data screen. It is labeled Land Type Fac.)

**G. FACTOR IN INFLUENCE CODES:**

1. Note Influence codes on the Land Data screen (if any).
2. For Negative influence codes, subtract the percentage from one to get the factor. For example if the influence code is -20 then subtract .2 from 1 and the factor will be .8.
3. For Positive influence codes, add the percentage to 1 to get the factor. For example if the influence code is 10 then add .1 to 1 and the factor will be 1.1.
4. If there are multiple influence codes defined, add the influence factors to have one total influence factor to apply.
5. Total Influence Factor = (1 +- Influence1) + (1 +- Influence2) + (1 +- Influence3)

**H. CALCULATE TOTAL LAND VALUE:**

| **(Factored Land Value X Total Influence Factor) + Lump Sum Adjustment = Total Land Value** |
|---|

1. Multiply the Factored Land Value times the Total Influence Factor.
2. Add the Lump Sum Adjustment that is listed on the bottom of the Land Data Screen.
3. Multiply the resulting value times the Jurisdictional Factor from the Jurisdictional Factors Descriptive Table. (This value is displayed on the Land Data screen. It is labeled Jurist Fact.)

**I. CALCULATE ASSESSED VALUE:**

| **Total Land Value X Jurisdictional Factor = Assessed Value** |
|---|

Multiply Total Land Value times the Jurisdictional Factor from the Jurisdictional Factors Descriptive Table. (This value is displayed on the Land Data screen. It is labeled Jurist Fact.)

**SPECIAL LAND CALCULATION:**

Special land calculations generally involve both the calculation of appraised value and the calculation of a use value such as agricultural, forestry or recreational uses. Use value is typically lower than appraised value. The use value may then be multiplied times an assessment factor to derive the assessed value. There are two methods of calculation: overriding the appraised land schedules (Land Price Data calculation table) to set a new land price per unit schedule or multiplying the appraised land value by a factor.

**A. CALCULATING SPECIAL LAND VALUES**

**OVERRIDING THE APPRAISED VALUE LAND SCHEDULE**

| **Special Land Price (Price) X Special Land Code X Special Land Factor X No. Of Units = Special Land Value** |
|---|

1. Go to the Special Land Price descriptive table and note the value in the Price column for the Code (LUC) and Unit Type.
2. Go to the Special Land Factors descriptive table and note the Factor for the Special Land Code.

3. Multiply the Special Land Price (Price) X the Special Land Code factor X Special Land Factor X the No. Of Units to calculate the Special Land Value.

**FACTORING THE APPRAISED VALUE**

| **Special Land Price (Factor) X Appraised Value X Special Land Code X Special Land Factor = Special Land Value** |
|---|

1. Go to the Special Land Price descriptive table and note the value in the Factor column for the Code (LUC) and Unit Type.
2. Go to the Special Land Factors descriptive table and note the Factor for the Special Land Code.
3. Multiply the Special Land Price (Factor) X the Appraised Value X the Special Land Code factor X Special Land Factor to calculate the Special Land Value.

**BUILDING CALCULATION**

**A. NOTE BUILDING PRICING INFORMATION:**

1. Go to the Building Pricing Calculation Table.
2. Select the building type from the building type list.
3. Note the Price Per Unit:

   Price Per Unit: _____

4. While in the Building Pricing Calculation Table note the Building Group for this Building type:

   Building Group: _____

**B. CALCULATE THE SIZE ADJUSTMENT:**

1. Note the actual size that will be used for calculations on the building. The actual size is the sum of the sub areas that have the "Use in Total Size Adj Area Calc" checkbox selected in the Size Adjustments Calculation Table for the Building Group. The actual size and the finished size are usually the same number. It may be easier to use the finished size because it appears at the bottom of the Sub Area Detail Screen under the table column for finished area.

   Actual Size: _____

2. The Size Adjustment Formula is:

| **[(Standard Size/Actual Size) X (Curve %)] + (1- Curve %)** |
|---|

3. Use the Size Adjustment Formula. Use the Actual Size noted above; all of the other values are listed for the Building Group in the Size Adjustment Calculation Table.
4. Make sure the Size Adjustment falls between the Min Factor and the Max Factor. Otherwise replace the Size Adjustment with either the Min Factor or Max Factor listed.

**C. CALCULATE THE CONSTRUCTION ADJUSTMENT:**

1. Construction Adjustment = the Indexes from the building descriptive tables multiplied together.
2. Enter the code used for each building attribute from the Building Description screen into the table below.
3. Go to the Descriptive Table for each of these attributes. Enter the index value for the code used on the building in the table below. If the index is blank, use a 1 for that value. If the field allows for 2 entries use the following formula to calculate the Index for the field.

**(Primary Field Index X (1 - Secondary%)) + (Secondary Field Index X Secondary%) = Index for Field**

4. Verify whether or not a value has been overridden in the Building Group Factors Calculation table. Select the Building Group, Building Attribute, and Code value used and note any override from the Factor field on the far right.

| Building Attribute | Code | Index | Index Override |
|---|---|---|---|
| Story Height | | | |
| Foundation Type | | | |
| Frame Type | | | |
| Exterior Wall Type | Prime:<br>Sec: %: | | |
| Roof Structure | | | |
| Roof Material | | | |
| View Codes | | | |
| Interior Wall Types | Prime:<br>Sec: %: | | |
| Partition Index | | | |
| Floor Types | Prime:<br>Sec: %: | | |
| Basement Floor Types<br>Use the Floor Types<br>Descriptive table | | | |
| Electric Types | | | |

| | | | |
|---|---|---|---|
| Insulation Types | | | |
| Plumbing Types | | | |
| Heating Fuel Types | | | |
| Heating System Types | Prime:<br>Sec: %: | | |
| Common Wall | SEE CALCULATION IN STEP 6 | | |
| Wall Height | SEE CALCULATION IN STEP 7 | | |

5. Multiply each of the index values together to get the construction adjustment. Any overrides are noted instead of the index they are replacing.
6. Common Wall = 1-(% Common Wall / 100 X Percent off / 100) % Common Wall is from the Building Description Screen.
   The Percent off is from the Common Wall % Off field in the Other Features Pricing Calculation Table.
7. Wall Height = 1+ (Avg. Ht per Fl - Height per Floor) X % Unit) Avg. Ht per Fl is from the Building Description Screen.
   The Height per Floor is from the Other Features Pricing Calculation Table.
8. Note the Construction Adjustment:

   Construction Adjustment: _____

**D. CALCULATE THE ADJUSTED SF RATE:**

1. The Adjusted SF Rate Formula is:

   **Adjusted SF Rate = (Rate per Building Type) X (Construction Adjustment) X (Size Adjustment)**

2. Use the values noted in the sections above to calculate the Adjusted SF Rate.

**E. CALCULATE THE SUBAREA RATE:**

1. The SubArea Rate Formula will be used for every sub-area in the building. The formula is:

   **SubArea Rate = Adjusted SF Rate X Units$ for Bldg Type Factor X Alt Type Factor**

2. Use the Adjusted SF Rate calculated above.
3. Use the Unit$ for Bldg Type from the SubArea Calculations table for the sub-area.
4. Use the Alternate Type factor from the Index Value column in the Alternate Types descriptive table. If the sub-area does not have an alternate type use 1.00 as the factor.

5. Note the Rate for every SubArea in the building:

SubArea: _____ Rate: _____

SubArea: _____ Rate: _____

SubArea: _____ Rate: _____

SubArea: _____ Rate: _____

SubArea: _____ Rate: _____

**F. CALCULATE THE SUBAREA AREA:**

1. The SubArea Area Formula will be used for every sub-area in the building. The formula is:

| **SubArea Area = SubArea SF X Adjusted Sketched Area Factor X % Alternate Type** |
|---|

1. Use the SubArea Square Footage (SubAreaSF) from the Sketched Area column on the SubArea Detail Screen.
2. Use the Adjusted Sketched Area Factor from the SubArea Calculations Table. If there is no factor use 1.00 as the factor.
3. Use the % Alternate Type from the SubArea Detail Screen. If there is no Alternate Type use 1.00 as the percentage.
4. Note the Area for each SubArea in your building:

SubArea: _____ Area: _____

SubArea: _____ Area: _____

SubArea: _____ Area: _____

SubArea: _____ Area: _____

SubArea: _____ Area: _____

**G. CALCULATE THE RCN (REPLACEMENT COST NEW):**

1. The SubArea Area Formula will be used for every SubArea in the building. The formula is:

| **RCN = SubArea Rate X SubArea Area** |
|---|

2. Note the RCN for every SubArea in the building:

SubArea: _____ RCN: _____

SubArea: _____ RCN: _____

SubArea: _____ RCN: _____

SubArea: _____ RCN: _____

SubArea:_____ RCN: _____

3. Sum all of the SubArea RCN values. Note the Total RCN.

Total RCN: _____

**H. CALCULATE THE OTHER FEATURES:**

1. Note the Number of Units and the Ratings from the following fields on the Building Description Screen.

| Feature | # of Units | Rating | Value |
|---|---|---|---|
| Full Baths | | | |
| Additional Baths | | | |
| 3/4 Baths | | | |
| Additional 3/4 Baths | | | |
| Half Baths | | | |
| Additional 1/2 Baths | | | |
| Other Features | | | |

| | | | |
|---|---|---|---|
| Kitchens | | | |
| Fireplaces | | | |
| W.S. Flues | | | |
| Bsmnt Garages | | | |

2. The formula to Calculate the Value for each of these features is:

**Feature Value = [First Value + (Extra Units X Additional Value)] X Feature Rating + (Lump Sum X Num of Units)**

3. First Value is the amount listed in the Other Features Pricing Calculation Table in the First field for this feature. This is the lump sum that will be assigned to the first feature.
4. The Extra Units equals the # of Units - 1, or the additional units. Enter 0 if there is only one unit.
5. The Additional Value is the amount listed in the Other Features Pricing Calculation Table in the Additional field for this feature.
6. Feature Rating is the rating or index value found in the descriptive table for this feature.
7. Lump Sum is the Lump Sum found in the descriptive table for this feature. If there is no Lump Sum, use 0.
8. Num of Units is the # of units entered in the table above, taken from the Building Description screen.
9. Calculate the value of each of the features listed above and enter them into the Value column of the table.

## I. CALCULATE MORE OTHER FEATURES:

1. The rest of the other features are calculated using a combination of base value and or a value per finished square foot for the building. Enter the values for each of the fields listed below from the Building Information Screen. If the screen has a checkbox that is selected enter a value of 1.

| Feature | Entry | Value |
|---|---|---|
| % Heated | | |
| % A/C | | |
| Solar Hot Water | | |
| % Sprinkler | | |

| | | |
|---|---|---|
| Central Vacuum | | |

2. The formula to calculate these other features is:

| **Feature Value = Base Value + (Unit Price X Finished Area)** |
|---|

3. The Base Value is from the Other Features Pricing Calculation Table in the Base Value field for this feature.
4. The Unit Price is from the Other Features Pricing Calculation Table in the Unit Price field for this feature.
5. The Finished Area is from the Sub Area Detail Screen. The total finished area appears at the bottom of the screen under the column for Finished Area.

**J. TOTAL THE OTHER FEATURE VALUES:**

1. Add the Value column for both tables of Other Features. Note the Other Features Value here:

   Other Features Value: _____

**K. CALCULATE THE APPRAISED VALUE:**

1. The Appraised Value calculation is:

| **Appraised Value = Total RCN + Other Features Value X (Grade Factor X NBHD Factor X NBHD Modifier) - Depreciation + Special Features** |
|---|

2. Use the Total RCN that was calculated earlier in this process.
3. The Other Features Value is the total of the other features that was calculated above.
4. The Grade Factor comes from the Index column of the Grade Types Descriptive table for the Grade type that is entered on the Building Information Screen.
5. The NBHD Factor is the Building Factor in the Land Price Table.
6. The NBHD Modifier comes from the BuildFactor column of the Neighborhood Modifiers Descriptive table for the Neighborhood code entered on the Land Data Screen.
7. Depreciation comes from the Depreciation Creation Calculation Table. Find the Factor by selecting the Building Group from the Existing Tables list. Scroll down until the age of the building is found in the table at the bottom and then read across to the number under the Physical condition rating that was entered on the Depreciation and Remodeling Screen.
8. See the Special Features Calculation for details. The user can enter the Special Features value from the Calculation Ladder Tab on the Valuation Information Screen into this calculation.

**L. CALCULATE THE VALUE ADJUSTED FOR THE JURISDICTION:**

1. The Value Adjusted for the Jurisdiction calculation is:

| **Value Adjusted for the Jurisdiction = Appraised Value X Jurisdiction Factor** |
|---|

2. The Jurisdiction Factor is in the Build Factor Column of the Jurisdictional Factors Descriptive Table for the Jurisdiction selected in the Jurisdiction field of the Building Description Screen.

**SPECIAL FEATURES AND YARD ITEMS (SFYI) CALCULATION**

The SFYI calculation is based primarily upon values entered in the Special Features/Yard Items screen, and the SFYI Pricing Calculation Table. The SFYI calculation is broken down step by step. In the next section there is an example with screenshots from AssessPro that will walk the user through the entire calculation.

**A. NOTE THE CHARACTERISTICS OF YOUR PARCEL FROM THE LAND DATA SCREEN.**

1. Go to the Special Features/Yard Items screen.
2. Note the SFYI code for the item to be calculated.

   SFYI code: _____
3. Note the Quantity and Units (Size) being used to measure the item.

   Quantity: _____Units (Size): _____
4. Note the Quality, Condition, Year and Unit Price for the item.

   Quality: _____Condition: _____Year: _____ Unit Price: _____
5. Note the Override Price, Depreciation Source, Depreciation%, Completed %, or Income box check.

   Override Price: _____Depreciation Source: _____

   Completed %: _____ Income Box Check: _____
6. Note the LUC, LUC Factor, Jurisdiction Code, Jurisdiction Factor, Neighborhood Factor and Neighborhood Modifier.

   LUC: _____ LUC Factor: _____

   Jurisdiction Code: _____ Jurisdiction Factor: _____

   Neighborhood Factor: _____ Neighborhood Modifier: _____

**B. CALCULATE SIZE ADJUSTMENT**

1. The Size Adjustment Calculation is:

| **[(Standard Size/Actual Size) X (Curve %)] + (1- Curve %)** |
|---|

2. The Actual Size is calculated from the Units (Size) field on the Special Features / Yard Items screen.
3. The Standard size and Curve % are from the SFYI Pricing Calculation Table.
4. Make sure the Size Adjustment falls between the Minimum Adjustment and the Maximum Adjustment. Otherwise replace the Size Adjustment with either the Minimum or Maximum Adjustment listed.
5. Note the Size Adjustment here:

   Size Adjustment: _____

**C. CALCULATE THE SFYI ITEM.**

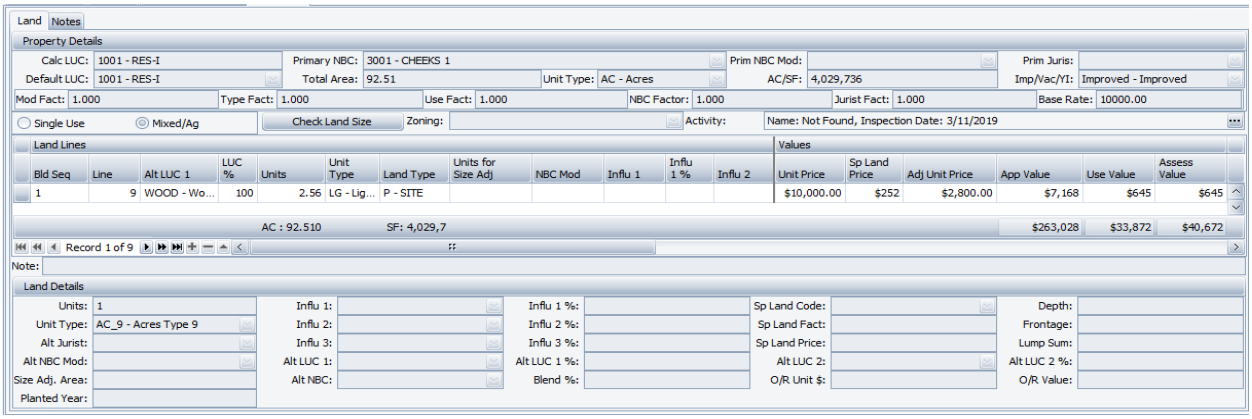
**(Quantity X Units)**
**X**
**(Unit Price X Size Adjustment X Quality X LUC Factor X Neighborhood Factor X Neighborhood Modifier)**
**X**
**[(1- Depr) X % Complete] X Jurisdictional Factor**

1. Go to the SFYI Pricing calculation table.
2. Select the SFYI Code for the item.
3. Multiply the Item Quantity X the Number of Units X the Size Adjustment (calculated above).
4. Multiply Unit Price per item found in the SFYI Pricing calculation table X the Quality factor found in the SFYI Quality Codes descriptive table ****see note 1****
5. Multiply Step 4 X the LUC factor found in the Land Use Codes descriptive table column labeled SFYIFactor.
6. Multiply Step 5 X Neighborhood Factor found in the Land Price Data calculation table for the parcel's neighborhood in the General Pricing Info field labeled Special Feature and Yard Item Factor.
7. Multiply Step 6 X the Neighborhood Modifier found in the Neighborhood Modifiers descriptive table.
8. Multiply Step 7 X Step 3.
9. Multiply Step 8 X (1 – Depr %) ****see note 2 ****
10. Multiply Step 9 X Completed %
11. Multiply Step 10 X Jurisdictional Factor

**Notes:**

1. The user may override the Unit Price per schedule by entering a value in the Override Price field.
2. The user may select a specific depreciation table constructed for SFYI items in the Depreciation Creation calculation table then default to the same depreciation used by the main building or set a manual amount. The manual amount is entered after the box marked Manual is selected.

**LAND CALCULATION**



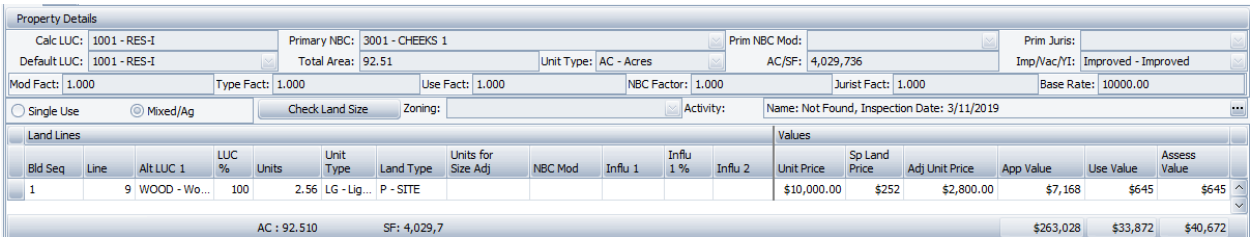

## Property Details

This section includes information for the whole parcel: Default LUC, Primary Neighborhood code, Primary Jurisdiction, parcel type, etc.

In this grid you will enter land information. ***Single Use*** and ***Mixed/Ag*** options determine which land lines grid columns will be displayed.

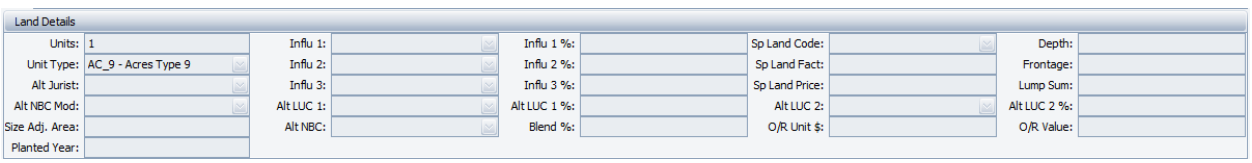
### Land Lines

In this section you will enter the land data. An unlimited number of landlines may be entered per parcel. The data, such as ***Neighborhood Code*** and ***Land Use Code*** are utilized in the valuation process. Each land can have **alternative LUCs**, **NBC modifier**, **land units**, etc. You can enter this information when adding a land line. If this data is not entered, the valuation process will be using data entered in the **Property Details** section. There are also a variety of ***influences*** and ***modifiers*** available.




## Land Details

Here you can view and/or edit information entered in the land lines grid and Notes tab.



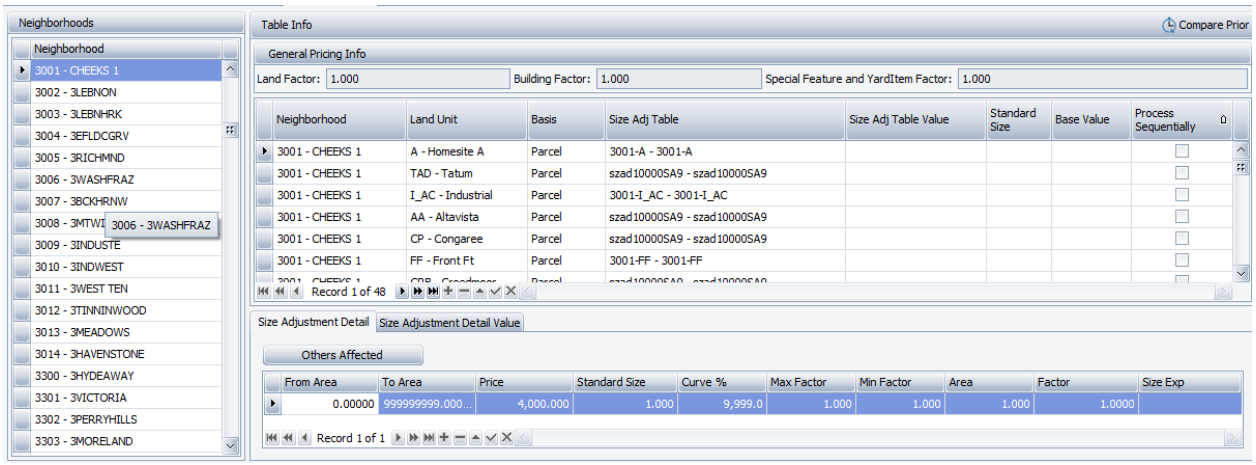
The land calculation is based primarily upon values entered in the Land Screen, and the Land Price Calculation Table, as well as on factors in the descriptive tables.

Note:

1. For Neighborhood Code, Neighborhood Modifier, Jurisdiction, Land Type, Neighborhood and Land Use Factors, these come from the land line if present, else from the property level.

2. If the land price has data in Area and Factor then it will find the closest Area/ Factor points and interpolate the factor rather than using the curve elements.

3. If the Exponent field has data, then it will use the units to the power of the entered exponent not either of the other two methods.




**Calculate Land Interval Sizes:**

1. Open the Land Price calculation table

2. The Neighborhood code for the parcel you are calculating will be selected by default in the neighborhoods list box on the left.

3. Select the Unit Type from the General Pricing Info grid in the Land Price calculation table.

4. Interval 1: The first interval Range field is the top range listed in the Size Adjustment Detail grid at bottom of the screen. If your Number of Units is less than or equal to this number, then your interval 1 actual size is equal to the Range number. If you have less land then the range given, then use your Number of Units as the interval 1 actual size. You will not have an interval 2 or 3.

**Apply the Size Adjustment to each Land Interval:**

The Standard size adjustment formula (SA) is:

Standard Size/ Actual Size x (Curve %) + (1-(Curve %)=Calculated SA

**Find the Interval Land Values:**

The Interval value formula is:

(Interval SA) X (Amount per Unit) X (Units in Range) = Interval Land Value

**Calculate Land Value:**

1. The Total Land Value Formula is:
   Interval 1 Land Value+ Interval 2 Land Value+ Interval 3 Land Value + Base Value = Land Value

2. Use the interval land values as noted above, and the base value that is in the land price calculate table.

3. Apply Factors:
   Land Value X Neighborhood Factor X LUC Factor X Neighborhood Modifier X Land Type Factor = Factored Land Value

4. Multiply the Land Value times the land Factor on the Land Price Calculation Table.

5. Multiply the resulting Land Value times the value from the Land Factor Column of the Land Use descriptive table.

6. Multiply the resulting Land Value times the Land Factor from the Neighborhood Modifiers Descriptive table.

7. Multiply the resulting Land Value times the Index Value in the Land Types Descriptive table.

**Factor in Influence Codes:**

1. Note influence codes on the land screen

2. For negative influence codes, subtract the percentage from one to get the factor.

3. For positive influence codes, add the percentage to 1 to get the factor.

4. If you have multiple influence codes defined, multiply the influence factors to have one total influence factor to apply.

   Total Influence Factor = (1 =- Influence1) X (1 +- Influence2) X (1 +- Influence3)

5. Calculate Total Land Value:

   (Factored Land Value X Total Influence Factor) = Lump Sum Adjustment = Total Land Value

6. Multiply the factored land value times the total influence factor.

7. Add the Lump Sum Adjustment from the land line.

8. Multiply the resulting value times the Jurisdictional Factor from the Jurisdictional Factors Descriptive Table.

9. Calculate Assessed Value

10. Multiply Total Land Value times the Jurisdictional Factor from the Jurisdictional Factors Descriptive Table.

    Total Land Value X Jurisdictional Factor = Assessed Value

# COST SCHEDULES

**REPLACEMENT COST LESS DEPRECIATION**

The cost approach to value is applicable for two principle reasons.

1. Appraisals for ad valorem taxes generally require separate land value estimates. N.C.G.S. 105-317(a)(1) requires the following:

   **"In determining the true value of land, to consider as to each tract, parcel, or lot separately listed at least its advantages and disadvantages as to location; zoning; quality of soil; waterpower; water privileges; dedication as a nature preserve; conservation or preservation agreements; mineral, quarry, or other valuable deposits; fertility; adaptability for agricultural, timber-producing, commercial, industrial, or other uses; past income; probable future income; and any other factors that may affect its value except growing crops of a seasonal or annual nature."**

2. The cost approach can be applied to all classes of property.

The use of one approach to the exclusion of the others is contrary to the appraisal process. The better method would therefore be an integrated approach based essentially upon cost but incorporating both market comparison and income whenever feasible and appropriate. The following cost schedules are based on a typically constructed fifteen hundred square foot dwelling of average quality components and workmanship with eight standard plumbing fixtures (water heater, kitchen sink, and two full, 3-fixture, baths) and a central heating system. All necessary adjustments to reflect any variance from base are also supplied.

**SIZE ADJUSTMENT CALCULATION**

Within certain parameters, and in varying levels across building types, one could expect an inverse relationship between the size of a property and its cost per square foot. Orange County will recognize this in its 2021 reappraisal. The Size Adjustment Table, located in the Calculation Tables, is used to calculate size adjustments based on the Building Group. There is a standard size, a curve percentage, and maximum and minimum factors. The size adjustment factor is multiplied by the basic unit price for the building type. The size adjustment for any property can be determined through the following formula, subject to both min and max values.

Size Adjustment = **[(Standard Size/Actual Size) X (Curve %)] + (1- Curve %)**

**Size Adjustment Table**

| Code | Description | Full Description | Std Size | Curve % | Min Factor | Max Factor |
|---|---|---|---|---|---|---|
| 1 | Office | Office | 5000 | 6 | 0.94 | 1.25 |
| 10 | Farm Bldgs | Farm Buildings | 15000 | 6 | 0.94 | 1.25 |
| 2 | Commercial | Commercial | 6000 | 11 | 0.85 | 1.15 |
| 20 | 20yr | 25 Year Depreciation | | | | |
| 25 | 25yr | 25 Year Depreciation | | | | |
| 3 | Institution | Institutional | 7000 | 6 | 0.95 | 1.25 |
| 30 | 30yr | 30 Year Depreciation | | | | |
| 35 | 35yr | 35 Year Depreciation | | | | |
| 4 | Apartments | Apartments | 7500 | 6 | 0.90 | 1.15 |
| 40 | 40yr | 40 Year Depreciation | | | | |
| 45 | 45yr | 45 Year Depreciation | | | | |
| 5 | Industrial | Industrial | 7500 | 9 | 0.90 | 1.25 |
| 50 | 50yr | 50 Year Depreciation | | | | |
| 55 | 55yr | 55 Year Depreciation | | | | |
| 6 | Retail | Retail | 6500 | 11 | 0.85 | 1.15 |
| 60 | 60yr | 60 Year Depreciation | | | | |
| 7 | Government | Government | 7000 | 6 | 0.95 | 1.25 |
| 70 | 70yr | 70 Year Depreciation | | | | |
| 8 | Hotel/Motel | Hotel / Motel | 8500 | 6 | 0.95 | 1.20 |
| 9 | Warehouses | Warehouses | 8000 | 9 | 0.90 | 1.25 |
| C | COMMERCIAL | | 4000 | 20 | 1.00 | 1.00 |
| M | Manufactured | Manufactured Home | 1150 | 33 | 0.85 | 1.30 |
| ND | No Depreciat | No Depreciation Groups | | | | |
| R | RESIDENTIAL | | 1500 | 36 | 0.88 | 1.24 |

Example:

A dwelling with a finished area of 2,071 square feet would have a size adjustment factor of 0.90074360 as determined by the following procedure.

Standard Size (1,500 Square Feet) divided by Actual Size (2,021 square Feet)
(1,500 / 2,021 = 0.724287784 X Curve% (.36) = .260743602 + 1 = 1.260743602 – Curve% (.36)
Equals the size adjustment factor (0.90074360)

**Building Use Codes and Base Rates**

| Code | Description | Full Description | Base Price | Building Category | Depreciation Table |
|---|---|---|---|---|---|
| C010 | Apt-Multi | Garden | 78.00 | 4 - Apartments | 50 - 50yr |
| C015 | Apt-Walk-Up | Walk-Up Apartment | 84.00 | 4 - Apartments | 45 - 45yr |
| C020 | Apt-Clubhse | Apartment Office/Clubhouse | 103.00 | 2 - Commercial | 35 - 35yr |
| C025 | Apt-Mixd Use | Mixed Use Apartment | 84.00 | 4 - Apartments | 45 - 45yr |
| C030 | Apt-Elev | Apt with Elevator (High-Rise) | 108.00 | 4 - Apartments | 50 - 50yr |
| C040 | Apt-Student | Student Apartment | 141.00 | 4 - Apartments | 45 - 45yr |
| C050 | Apt-Twnhse | Town House Apartment | 85.00 | 4 - Apartments | 40 - 40yr |
| C055 | Apt-Bsmt | Basement Apartment | 62.00 | 4 - Apartments | 45 - 45yr |
| C060 | Rooming Hse | Rooming House | 89.00 | 2 - Commercial | 50 - 50yr |
| C065 | Group Home | Group Care Home | 109.00 | 2 - Commercial | 45 - 45yr |
| C070 | Hotel-FullSv | Hotel-Full Service | 150.00 | 8 - Hotel/Motel | 50 - 50yr |
| C075 | Hotel Bsmt | Hotel Basement | 84.00 | 8 - Hotel/Motel | 50 - 50yr |
| C080 | Hotel-LmtSv | Hotel-Limited Service | 113.00 | 8 - Hotel/Motel | 45 - 45yr |
| C090 | Motel-ExtSta | Motel-Extended Stay | 99.00 | 8 - Hotel/Motel | 40 - 40yr |
| C100 | Motel | Motel | 104.00 | 8 - Hotel/Motel | 40 - 40yr |
| C105 | Bed & Brkfst | Bed & Breakfast | 100.00 | 8 - Hotel/Motel | 50 - 50yr |
| C130 | Dormitory | Dormitory | 128.00 | 2 - Commercial | 45 - 45yr |
| C140 | Fraternity | Fraternity House | 111.00 | 2 - Commercial | 45 - 45yr |
| C150 | Sorority | Sorority House | 111.00 | 2 - Commercial | 45 - 45yr |
| C160 | Nursing Hme | Nursing Home | 148.00 | 3 - Institution | 40 - 40yr |
| C165 | Assisted Liv | Assisted Living | 97.00 | 3 - Institution | 50 - 50yr |
| C170 | Urgent Care | Urgent Care Clinic | 109.00 | 3 - Institution | 35 - 35yr |
| C180 | Outpatient | Outpatient Facility | 220.00 | 3 - Institution | 40 - 40yr |
| C190 | Day Care | Day Care | 135.00 | 2 - Commercial | 35 - 35yr |
| C200 | Retail Store | Retail Store | 90.00 | 6 - Retail | 45 - 45yr |
| C205 | Retail Condo | Retail Condo | 144.00 | 6 - Retail | 45 - 45yr |
| C210 | Store-MulTnt | Store Multi-Tenant | 66.00 | 6 - Retail | 45 - 45yr |
| C215 | Whse-Showrm | Warehouse Showroom Store | 54.00 | 6 - Retail | 30 - 30yr |
| C220 | Store-w/Apt | Stores w/Apts | 94.00 | 6 - Retail | 50 - 50yr |
| C230 | Store-w/Off | Stores w/Offices | 96.00 | 6 - Retail | 50 - 50yr |
| C240 | Store-w/OfAp | Stores w/Offices & Apts | 106.00 | 6 - Retail | 50 - 50yr |
| C245 | Store-w/Stg | Stores w/Storage | 94.00 | 6 - Retail | 50 - 50yr |
| C250 | SC-Nbrhd | Neighborhood Shopping Center | 89.00 | 6 - Retail | 40 - 40yr |
| C260 | SC-Comm | Community Shopping Center | 95.00 | 6 - Retail | 45 - 45yr |
| C270 | SC-Mall | Regional Mall/Shopping Center | 111.00 | 6 - Retail | 50 - 50yr |
| C280 | Store-Dept | Department Store | 124.00 | 6 - Retail | 45 - 45yr |
| C290 | Store-Anchor | Mall Anchor Store | 94.00 | 6 - Retail | 45 - 45yr |
| C300 | Store-Shell | Retail Shell | 45.00 | 6 - Retail | 45 - 45yr |
| C315 | Roadside Mkt | Roadside Market | 35.00 | 2 - Commercial | 30 - 30yr |

| | | | | | |
|---|---|---|---|---|---|
| C320 | Store-Disc | Discount Store | 69.00 | 6 - Retail | 35 - 35yr |
| C330 | Store-Whse | Warehouse Discount | 54.00 | 6 - Retail | 30 - 30yr |
| C335 | Market | Market | 87.00 | 2 - Commercial | 40 - 40yr |
| C340 | Mini-Mart | Mini-Mart | 148.00 | 2 - Commercial | 35 - 35yr |
| C345 | Conv-MultUse | Mult-Use Convenience Store | 92.00 | 2 - Commercial | 50 - 50yr |
| C350 | Supermarket | Supermarket | 89.00 | 2 - Commercial | 45 - 45yr |
| C355 | Conv Market | Convenience Market | 88.00 | 2 - Commercial | 40 - 40yr |
| C360 | Drugstore | Drugstore-Stand Alone | 110.00 | 6 - Retail | 40 - 40yr |
| C370 | Retail-Conv | Retail Use-Converted Residence | 84.00 | 6 - Retail | 50 - 50yr |
| C375 | Rest-Truck S | Truck Stop Restaurant | 134.00 | 2 - Commercial | 30 - 30yr |
| C380 | Restaurant | Restaurant | 131.00 | 2 - Commercial | 35 - 35yr |
| C385 | Diner-Modulr | Modular Diner | 217.00 | 2 - Commercial | 35 - 35yr |
| C390 | Cafeteria | Cafeteria | 122.00 | 2 - Commercial | 35 - 35yr |
| C400 | Fast Food | Fast Food | 142.00 | 2 - Commercial | 30 - 30yr |
| C420 | Bar/Tavern | Bar/Tavern | 105.00 | 2 - Commercial | 40 - 40yr |
| C425 | Unfin Bsmt | Unfinished Basement | 44.00 | 2 - Commercial | 40 - 40yr |
| C430 | Office | General Office | 115.00 | 1 - Office | 50 - 50yr |
| C435 | Dental Clini | Dental Clinic | 145.00 | 1 - Office | 35 - 35yr |
| C440 | Ofc-Condo | Office Condo | 155.00 | 1 - Office | 50 - 50yr |
| C445 | Ofc-Med Con | Medical Condo | 205.00 | 1 - Office | 50 - 50yr |
| C450 | Ofc-Med | Medical Office | 159.00 | 1 - Office | 40 - 40yr |
| C455 | Ofc-Shell | Office Shell | 70.00 | 1 - Office | 50 - 50yr |
| C460 | Ofc-W Apt | Office/Apartment | 96.00 | 1 - Office | 40 - 40yr |
| C465 | Ofc-Bsmt | Basement Office | 84.00 | 1 - Office | 50 - 50yr |
| C470 | Ofc-Conv Res | Office-Converted Residence | 84.00 | 1 - Office | 45 - 45yr |
| C475 | Bsmt Parking | Basement Parking | 54.00 | 2 - Commercial | 50 - 50yr |
| C480 | Bank-Branch | Branch Bank Building | 191.00 | 1 - Office | 50 - 50yr |
| C485 | Bank-Central | Banks-Central Office | 203.00 | 1 - Office | 55 - 55yr |
| C490 | Bank-Mini | Drive-in Only | 316.00 | 1 - Office | 50 - 50yr |
| C495 | Ofc-Modular | Office Modular | 42.00 | 1 - Office | 20 - 20yr |
| C500 | Bank-Bsmt | Bank Basement | 102.00 | 1 - Office | 50 - 50yr |
| C510 | Vet Clinic | Vet Clinic | 143.00 | 2 - Commercial | 40 - 40yr |
| C520 | Funeral Home | Funeral Home | 128.00 | 2 - Commercial | 45 - 45yr |
| C525 | Funeral-Bsmt | Basement Funeral Home | 57.00 | 2 - Commercial | 45 - 45yr |
| C530 | Auto Showrm | Auto Showroom/Office | 115.00 | 2 - Commercial | 40 - 40yr |
| C540 | Auto Service | Auto Dealership Service | 75.00 | 2 - Commercial | 30 - 30yr |
| C545 | Repair Garag | Service (Repair) Garage | 55.00 | 2 - Commercial | 40 - 40yr |
| C550 | Auto Serv Cn | Auto Service Center | 63.00 | 2 - Commercial | 40 - 40yr |
| C555 | Quonset Bldg | Quonset Bldg | 22.00 | 9 - Warehouses | 20 - 20yr |
| C560 | Mini Lube | Mini Lube | 101.00 | 2 - Commercial | 35 - 35yr |
| C570 | Service Sta | Service Station | 128.00 | 2 - Commercial | 20 - 20yr |

| | | | | | |
|---|---|---|---|---|---|
| C590 | Carwash-Driv | Car Wash Drive-Thru | 94.00 | 2 - Commercial | 25 - 25yr |
| C595 | Carwash-Auto | Full-Service Carwash | 117.00 | 2 - Commercial | 25 - 25yr |
| C600 | Carwash-Self | Self-Serve Carwash | 72.00 | 2 - Commercial | 25 - 25yr |
| C610 | Parking Deck | Parking Deck | 57.00 | 2 - Commercial | 40 - 40yr |
| C620 | Thtr-Movie | Movie Theater | 109.00 | 2 - Commercial | 40 - 40yr |
| C630 | Thtr-Perform | Performance Theater | 131.00 | 2 - Commercial | 45 - 45yr |
| C635 | Comm Rec Ctr | Community Recreation Center | 133.00 | 2 - Commercial | 40 - 40yr |
| C640 | Arena | Arena | 29.00 | 10 - Farm Bldgs | 25 - 25yr |
| C650 | Gymnasium | Gymnasium | 120.00 | 2 - Commercial | 40 - 40yr |
| C655 | Barber/Beaut | Barber/Beauty Salons | 80.00 | 2 - Commercial | 40 - 40yr |
| C660 | Fitness Cntr | Fitness Center | 114.00 | 2 - Commercial | 40 - 40yr |
| C670 | Bowling Aly | Bowling Alley | 78.00 | 2 - Commercial | 30 - 30yr |
| C675 | Senior Cntr | Senior Center | 151.00 | 2 - Commercial | 45 - 45yr |
| C680 | Clubhouse | Clubhouse | 98.00 | 2 - Commercial | 45 - 45yr |
| C690 | Country Club | Country Club House | 142.00 | 2 - Commercial | 45 - 45yr |
| C695 | Tennis Club | Tennis Club | 65.00 | 2 - Commercial | 35 - 35yr |
| C700 | Shower House | Shower House | 135.00 | 2 - Commercial | 30 - 30yr |
| C705 | Natatorium | Natatorium | 125.00 | 2 - Commercial | 40 - 40yr |
| C710 | Bath House | Bath House | 103.00 | 2 - Commercial | 55 - 55yr |
| C715 | Pool Encl | Pool Enclosure | 52.00 | 2 - Commercial | 45 - 45yr |
| C720 | Snack Bar | Snack Bar | 79.00 | 2 - Commercial | 30 - 30yr |
| C730 | Guard House | Guard House | 78.00 | 2 - Commercial | 20 - 20yr |
| C740 | Kennel | Kennel | 94.00 | 2 - Commercial | 40 - 40yr |
| C750 | Stable | Stable | 30.00 | 10 - Farm Bldgs | 25 - 25yr |
| C755 | Stable-Estat | Estate Stables | 103.00 | 10 - Farm Bldgs | 35 - 35yr |
| C800 | Dry Cleaners | Dry Cleaners | 81.00 | 2 - Commercial | 40 - 40yr |
| C805 | Laundromat | Laundromat | 80.00 | 2 - Commercial | 35 - 35yr |
| C810 | Utility Bldg | Utility Building | 21.00 | 2 - Commercial | 25 - 25yr |
| C815 | Material Stg | Material/Lumber Storage Bldg | 25.00 | 2 - Commercial | 20 - 20yr |
| C820 | Golf Cart St | Golf Cart Storage Building | 44.00 | 2 - Commercial | 30 - 30yr |
| C900 | Greenhouse L | Greenhouse-Low | 5.00 | 10 - Farm Bldgs | 20 - 20yr |
| C905 | Greenhouse F | Greenhouse-Fair | 7.00 | 10 - Farm Bldgs | 20 - 20yr |
| C910 | Greenhouse A | Greenhouse-Ave | 11.00 | 10 - Farm Bldgs | 25 - 25yr |
| C915 | Greenhouse G | Greenhouse-Good | 23.00 | 10 - Farm Bldgs | 35 - 35yr |
| C920 | Pltry Hs Bre | Poultry House-Breeder | 16.00 | 10 - Farm Bldgs | 20 - 20yr |
| C925 | Pltry Hs Bro | Poultry House - Broiler | 12.00 | 10 - Farm Bldgs | 20 - 20yr |
| C930 | Pltry Hs Enc | Poultry House - Enclosed | 24.00 | 10 - Farm Bldgs | 20 - 20yr |
| C935 | Pltry Hs Scr | Poultry House - Screened | 15.00 | 10 - Farm Bldgs | 20 - 20yr |
| C940 | Farm Ut Bldg | Farm Utility Building | 15.00 | 10 - Farm Bldgs | 20 - 20yr |
| E010 | Air Terminal | Airport Terminal | 234.00 | 2 - Commercial | 40 - 40yr |
| E015 | Church-Bsmt | Church Basement | 86.00 | 3 - Institution | 45 - 45yr |

| | | | | | |
|---|---|---|---|---|---|
| E020 | Armory | Amory | 95.00 | 7 - Government | 50 - 50yr |
| E025 | Church-Educ | Church Education | 100.00 | 3 - Institution | 45 - 45yr |
| E030 | Church | Church | 151.00 | 3 - Institution | 45 - 45yr |
| E035 | Fellowship H | Fellowship Hall | 101.00 | 3 - Institution | 40 - 40yr |
| E040 | Fire Station | Fire Station Staffed | 133.00 | 7 - Government | 40 - 40yr |
| E045 | Vol Fire Dep | Volunteer Fire Dept | 75.00 | 7 - Government | 30 - 30yr |
| E050 | Hospital | Hospital | 262.00 | 3 - Institution | 40 - 40yr |
| E060 | Library | Library | 144.00 | 3 - Institution | 50 - 50yr |
| E065 | Comm Svc Bld | Community Service Building | 122.00 | 7 - Government | 50 - 50yr |
| E070 | Govt Bldg | Governmental Building | 163.00 | 7 - Government | 50 - 50yr |
| E075 | Jail | Jail | 206.00 | 7 - Government | 40 - 40yr |
| E080 | Museum | Museum | 148.00 | 2 - Commercial | 50 - 50yr |
| E085 | Fraternal Bu | Fraternal Building | 126.00 | 2 - Commercial | 40 - 40yr |
| E090 | Post Office | Post Office | 151.00 | 2 - Commercial | 50 - 50yr |
| E105 | Police Dept | Police Department | 144.00 | 7 - Government | 45 - 45yr |
| E115 | Admin Office | Administration Office | 129.00 | 3 - Institution | 45 - 45yr |
| E120 | School-High | High School | 147.00 | 3 - Institution | 45 - 45yr |
| E125 | School-Middl | Middle School | 142.00 | 3 - Institution | 45 - 45yr |
| E130 | School-Elem | Elementary School | 149.00 | 3 - Institution | 45 - 45yr |
| E135 | College | College Classrooms | 150.00 | 3 - Institution | 45 - 45yr |
| E140 | Multip-Bldg | Multipurpose Building | 131.00 | 3 - Institution | 40 - 40yr |
| E145 | Manual Arts | Manual Arts (Shop) | 113.00 | 3 - Institution | 40 - 40yr |
| E150 | Lab Bldg | Laboratory Classroom | 138.00 | 3 - Institution | 40 - 40yr |
| E155 | Academic Lib | Academic Library | 147.00 | 3 - Institution | 50 - 50yr |
| E160 | Classrooms | Classrooms | 126.00 | 3 - Institution | 40 - 40yr |
| E165 | Mod Classrm | Modular Classroom | 97.00 | 3 - Institution | 20 - 20yr |
| E170 | Lecture Hall | Lecture Hall | 158.00 | 3 - Institution | 40 - 40yr |
| I010 | Loft | Loft | 82.00 | 5 - Industrial | 50 - 50yr |
| I020 | Manuf-Light | Light Manufacturing | 55.00 | 5 - Industrial | 40 - 40yr |
| I030 | Manuf-Heavy | Heavy Manufacturing | 123.00 | 5 - Industrial | 50 - 50yr |
| I040 | Whse-Mega | Mega Storage Warehouse | 39.00 | 9 - Warehouses | 40 - 40yr |
| I050 | Laboratories | Laboratories | 200.00 | 5 - Industrial | 45 - 45yr |
| I060 | Broadcasting | Broadcasting Facility | 137.00 | 2 - Commercial | 45 - 45yr |
| I070 | Research Bld | Research & Development | 84.00 | 5 - Industrial | 45 - 45yr |
| I080 | Basement Ind | Basement Industrial (Unf) | 42.00 | 5 - Industrial | 40 - 40yr |
| I100 | Warehouse | Warehouse | 51.00 | 9 - Warehouses | 40 - 40yr |
| I110 | Whse-Cold St | Cold Storage Warehouse | 70.00 | 9 - Warehouses | 40 - 40yr |
| I120 | Whse-Flex | Flex Warehouse | 52.00 | 9 - Warehouses | 40 - 40yr |
| I130 | Whse-Distrib | Dist Warehouse | 49.00 | 9 - Warehouses | 40 - 40yr |
| I140 | Whse-Mini | Mini Warehouse | 36.00 | 9 - Warehouses | 35 - 35yr |
| I145 | T-Hanger | T-Hanger | 38.00 | 9 - Warehouses | 30 - 30yr |

| | | | | | |
|---|---|---|---|---|---|
| I150 | Stg Hanger | Storage Hanger | 41.00 | 9 - Warehouses | 30 - 30yr |
| I155 | Maint Hanger | Maintenance Hanger | 56.00 | 9 - Warehouses | 35 - 35yr |
| I160 | Whse-Transit | Transit Warehouse | 65.00 | 9 - Warehouses | 40 - 40yr |
| I170 | Mail Process | Mail Processing Facility | 94.00 | 9 - Warehouses | 45 - 45yr |
| I180 | Creamery | Creamery | 94.00 | 5 - Industrial | 35 - 35yr |
| R010 | Single Fam | Single Family | 95.00 | R - RESIDENTIAL | R - Residential |
| R015 | Modular | Modular Home | 90.00 | R - RESIDENTIAL | R - Residential |
| R020 | TTF Fam | Two, Three, Four Family | 84.00 | R - RESIDENTIAL | R - Residential |
| R030 | Condo-Res | Condominium | 100.00 | R - RESIDENTIAL | R - Residential |
| R040 | Townhome | Residential Townhome | 94.00 | R - RESIDENTIAL | R - Residential |
| R060 | Manuf Home | Manufactured Home | 45.00 | M - Manufactured | M - Manufactured |

**Story Height Multipliers**

This field reflects design of a structure. It does not, however, affect actual square footage of a property. A factor of 0.90 is applied to properties with a design of greater than 1.0 story. Market research shows that area above the main level is not as costly since it is able to capitalize on the sunk costs of foundation, roofing, etc. The 0.90 factor is applied to the building's "Main" area value.

| | | | |
|---|---|---|---|
| 1.0 Story | Base | 3.0 Story | 0.90 |
| 1.25 Story | 0.90 | 3.5 Story | 0.90 |
| 1.5 Story | 0.90 | 3.75 Story | 0.90 |
| 1.75 Story | 0.90 | 4.0 Story | 0.90 |
| 2.0 Story | 0.90 | 4.75 Story | 0.90 |
| 2.0 Story w/attic | 0.90 | 5.0 Story | 0.90 |
| 2.5 Story | 0.90 | 6.0+ Story | 0.90 |
| 2.75 Story | 0.90 | | |

**Exterior Wall Multipliers**

Primary exterior wall type should be reflected in this field.

| | |
|---|---|
| Frame or Equal | 1.00 |
| Masonry/Brick | 1.075 |
| Stone | 1.00 |

**Grade Multipliers**

To determine the Replacement Cost New (RCN) of a dwelling, the appraiser first analyzes and values the building according to size (main foundation area), story height, and other basic features as listed for that particular subject property, based on the valuation schedule contained herein. This determines the Schedule Value of such a building on the basis of average materials and workmanship. To adjust for quality of construction and finish, the following grading system is then applied.

A grade is chosen based on the above descriptions, per the appraiser's observations and analysis of the market. The numeric which follows the grade enables the appraiser to adjust values within a range, bringing the appraisals as close as possible to market value. The factor shown is the amount the base Schedule Value is adjusted to calculate a RCN for the building being appraised.

| *Code* | *Full Description* | *Index* |
|---|---|---|
| AA95 | Grade AA+95 | 6.95000000 |
| AA90 | Grade AA+90 | 6.65000000 |
| AA85 | Grade AA+85 | 6.35000000 |
| AA80 | Grade AA+80 | 6.05000000 |
| AA75 | Grade AA+75 | 5.75000000 |
| AA70 | Grade AA+70 | 5.45000000 |
| AA65 | Grade AA+65 | 5.15000000 |
| AA60 | Grade AA+60 | 4.85000000 |
| AA55 | Grade AA+55 | 4.55000000 |
| AA50 | Grade AA+50 | 4.25000000 |
| AA45 | Grade AA+45 | 3.95000000 |
| AA40 | Grade AA+40 | 3.80000000 |
| AA35 | Grade AA+35 | 3.65000000 |
| AA30 | Grade AA+30 | 3.50000000 |
| AA25 | Grade AA+25 | 3.35000000 |
| AA20 | Grade AA+20 | 3.20000000 |
| AA15 | Grade AA+15 | 3.05000000 |
| AA10 | Grade AA+10 | 2.90000000 |
| AA05 | Grade AA+05 | 2.75000000 |
| AA | Grade AA | 2.60000000 |
| A+95 | Grade A+95 | 2.55000000 |
| A+90 | Grade A+90 | 2.50000000 |
| A+85 | Grade A+85 | 2.45000000 |
| A+80 | Grade A+80 | 2.40000000 |
| A+75 | Grade A+75 | 2.35000000 |
| A+70 | Grade A+70 | 2.30000000 |
| A+65 | Grade A+65 | 2.25000000 |
| A+60 | Grade A+60 | 2.20000000 |
| A+55 | Grade A+55 | 2.15000000 |
| A+50 | Grade A+50 | 2.10000000 |
| A+45 | Grade A+45 | 2.05000000 |
| A+40 | Grade A+40 | 2.00000000 |
| A+35 | Grade A+35 | 1.95000000 |
| A+30 | Grade A+30 | 1.90000000 |

| *Code* | *Full Description* | *Index* |
|---|---|---|
| A+25 | Grade A+25 | 1.85000000 |
| A+20 | Grade A+20 | 1.80000000 |
| A+15 | Grade A+15 | 1.75000000 |
| A+10 | Grade A+10 | 1.70000000 |
| A+05 | Grade A+05 | 1.65000000 |
| A | Grade A | 1.60000000 |
| A-05 | Grade A-05 | 1.55000000 |
| A-10 | Grade A-10 | 1.50000000 |
| A-15 | Grade A-15 | 1.45000000 |
| B+10 | Grade B+10 | 1.40000000 |
| B+05 | Grade B+05 | 1.35000000 |
| B | Grade B | 1.30000000 |
| B-05 | Grade B-05 | 1.25000000 |
| B-10 | Grade B-10 | 1.20000000 |
| B-15 | Grade B-15 | 1.15000000 |
| C+10 | Grade C+10 | 1.10000000 |
| C+05 | Grade C+05 | 1.05000000 |
| C | Grade C | 1.00000000 |
| C-05 | Grade C-05 | 0.95000000 |
| C-10 | Grade C-10 | 0.90000000 |
| C-15 | Grade C-15 | 0.85000000 |
| D+10 | Grade D+10 | 0.80000000 |
| D+05 | Grade D+05 | 0.75000000 |
| D | Grade D | 0.70000000 |
| D-05 | Grade D-05 | 0.65000000 |
| D-10 | Grade D-10 | 0.60000000 |
| D-15 | Grade D-15 | 0.55000000 |
| E+10 | Grade E+10 | 0.50000000 |
| E+05 | Grade E+05 | 0.45000000 |
| E | Grade E | 0.40000000 |
| E-05 | Grade E-05 | 0.35000000 |
| E-10 | Grade E-10 | 0.30000000 |
| E-15 | Grade E-15 | 0.25000000 |

**Roof Material Types**

| *Code* | *Full Description* | *Index* |
|---|---|---|
| C | Copper | NULL |
| M | Metal | NULL |
| R | Roll | NULL |
| S | Shingle | NULL |
| SL | Slate | NULL |
| T | Tile | NULL |
| Tar | Tar/Gravel | NULL |
| W | Shk/Wood | NULL |

**Heat Fuel Types**

| *Code* | *Full Description* | *Index* |
|---|---|---|
| 1 | OIL | NULL |
| 2 | GAS | NULL |
| 3 | ELECTRIC | NULL |
| 4 | OIL | NULL |
| 5 | SOLAR | NULL |
| 6 | WOOD | NULL |
| 7 | COAL | NULL |
| 8 | TYPICAL | NULL |
| 9 | WOOD/COMBO | NULL |

**Roof Structure Types**

| *Code* | *Full Description* | *Index* |
|---|---|---|
| F | Flast | NULL |
| G | Gable | NULL |
| H | Hip | NULL |
| M | Mansard | NULL |
| R | Gambrel | NULL |

**Floor Types**

| *Code* | *Full Description* | *Index* |
|---|---|---|
| A | Asphalt Tile | NULL |
| B | Parquet | NULL |
| C | Concrete | NULL |
| D | Marble | NULL |
| E | Earth | NULL |
| H | Hardwood | NULL |
| P | Swd Plywood | NULL |
| T | Tile | NULL |
| W | Wall/Wall | NULL |
| Z | Terrazzo | NULL |

**Heat System Types**

| *Code* | *Full Description* | *Index* |
|---|---|---|
| 1 | Forced-air heat & air conditioning | NULL |
| 10 | No Heat | 0.95000000 |
| 11 | Geothermal | NULL |
| 2 | Radiant floor or wall heat | NULL |
| 3 | Steam or hot water heat | NULL |
| 4 | Combination heat & air conditioning | NULL |
| 5 | Electric heat pump forced-air system | NULL |
| 6 | Passive solar heat | NULL |
| 7 | Non-specific heat | NULL |
| 8 | Forced-air gas heat & air conditioning | NULL |
| 9 | Electric Baseboard Heat | 0.98000000 |

**Land Influence Types**

| *CODE* | *DESCRIPTION* | *FULL DESCRIPTION* |
|---|---|---|
| 1 | Unimproved | Unimproved |
| 3 | Topography | Topography |
| 4 | Shape/Size | Shape/Size |
| 8 | View | View |
| A | Access | Access |
| COM | Common Area | Common Area |
| CSV | Consv Esmt | Conservation Easement |
| DPTH | Depth Factor | Depth Factor |
| E | Easement | Easement |
| EX | Excess | Excess |
| FP | FLOODPLAIN | Floodplain |
| FW | FLOODWAY | Floodway |
| G | Golf Course | Adjoins Golf Course |
| I | Corner/End | Corner/End |
| K | Use | Use |
| LL | Low Land | Low Land |
| MKT | Mkt Adjs | Market Adjustment  Market Adjustment |
| O | Other | Other |
| OP | Open Space | Open Space |
| PERC | No Perc | No Perc |
| PL | Power Line | Power Line |
| Q | Development | Development |
| REC | Rec Area | Recreation Area |
| S | Shape | Shape |
| SIZE | SIZE ADJ | SIZE ADJ |
| U | Unimproved | Unimproved |
| V | Vacant | Vacant |
| W | Water Front | Water Front |
| Z | Size | Size |

**Sub Area Types**

| Code | Full Description | Finished | Unit Price | Sketch Factor | Size Adj | Assoc. SFYI | Pricing Info | Sub Area Detail |
|---|---|---|---|---|---|---|---|---|
| AA | Attached Addition | YES | 0.95 | 1.0000 | YES | | UNIT PRICING | YES |
| AG | Attached Garage | NO | NULL | NULL | NO | AG | ASSOC SFYI PRICING | YES |
| AT25 | 25% Finished Attic | YES | 1.00 | 0.0397 | YES | | UNIT PRICING | YES |
| AT50 | 50% Finished Attic | YES | 1.00 | 0.0700 | YES | | UNIT PRICING | YES |
| AT75 | 75% Finished Attic | YES | 1.00 | 0.1098 | YES | | UNIT PRICING | YES |
| ATTF | 100% Finished Attic | YES | 1.00 | 0.1500 | YES | | UNIT PRICING | YES |
| ATTU | UnFinished Attic | NO | 0.10 | 0.1500 | NO | | UNIT PRICING | YES |
| BG | Built-in Garage | NO | NULL | 1.0000 | NO | BG | ASSOC SFYI PRICING | YES |
| BSF2 | 25% Finished Basement | YES | 0.80 | 0.2500 | NO | | UNIT PRICING | YES |
| BSF4 | 40% Finished Basement | YES | 0.80 | 0.4000 | NO | | UNIT PRICING | YES |
| BSF5 | 50% Finished Basement | YES | 0.80 | 0.5000 | NO | | UNIT PRICING | YES |
| BSF6 | 60% Finished Basement | YES | 0.80 | 0.6000 | NO | | UNIT PRICING | YES |
| BSF7 | 75% Finished Basement | YES | 0.80 | 0.7500 | NO | | UNIT PRICING | YES |
| BSFN | Finished Basement | YES | 0.80 | 1.0000 | NO | | UNIT PRICING | YES |
| BSU2 | 25% UnFinished Basement | NO | 0.40 | 0.2500 | NO | | UNIT PRICING | YES |
| BSU4 | 40% UnFinished Basement | NO | 0.40 | 0.4000 | NO | | UNIT PRICING | YES |
| BSU5 | 50% UnFinished Basement | NO | 0.40 | 0.5000 | NO | | UNIT PRICING | YES |
| BSU6 | 60% Unfinished Basement | NO | 0.40 | 0.6000 | NO | | UNIT PRICING | YES |
| BSU7 | 75% UnFinished Basement | NO | 0.40 | 0.7500 | NO | | UNIT PRICING | YES |
| BSUF | UnFinished Basement | NO | 0.40 | 1.0000 | NO | | UNIT PRICING | YES |
| C502 | Utility Bldg | NO | NULL | NULL | NO | C502 | ASSOC SFYI PRICING | YES |
| C503 | Patio | NO | NULL | NULL | NO | C503 | ASSOC SFYI PRICING | YES |
| C504 | Open Porch | NO | NULL | NULL | NO | C504 | ASSOC SFYI PRICING | NO |
| C505 | Enclosed Porch | NO | NULL | NULL | NO | C505 | ASSOC SFYI PRICING | YES |
| C506 | Screen Porch | NO | NULL | NULL | NO | C506 | ASSOC SFYI PRICING | YES |
| C507 | Bank Canopy | NO | NULL | NULL | NO | C507 | ASSOC SFYI PRICING | NO |
| C508 | Canopy | NO | NULL | NULL | NO | C508 | ASSOC SFYI PRICING | YES |
| C509 | Deck | NO | NULL | NULL | NO | C509 | ASSOC SFYI PRICING | NO |
| C510 | Truck Well | NO | NULL | NULL | NO | C510 | ASSOC SFYI PRICING | NO |
| C511 | Atrium | NO | NULL | NULL | NO | C511 | ASSOC SFYI PRICING | NO |
| C512 | Loading Dock | NO | NULL | NULL | NO | C512 | ASSOC SFYI PRICING | NO |
| C513 | Covered Loading Dock | NO | NULL | NULL | NO | C513 | ASSOC SFYI PRICING | NO |
| C514 | Attached Garage | NO | NULL | NULL | NO | C514 | ASSOC SFYI PRICING | YES |
| C515 | Warehouse | YES | NULL | NULL | NO | C515 | ASSOC SFYI PRICING | YES |
| CA | Carport | NO | NULL | 1.0000 | NO | CA | ASSOC SFYI PRICING | YES |
| CO | Commercial Structure | YES | 1.00 | 1.0000 | YES | | UNIT PRICING | YES |
| DK | Deck | NO | NULL | NULL | NO | DK | ASSOC SFYI PRICING | YES |
| EP | Enclosed Porch | NO | NULL | NULL | NO | EP | ASSOC SFYI PRICING | YES |
| FM | Farm Building (barns, etc) | NO | NULL | 1.0000 | NO | FM | ASSOC SFYI PRICING | NO |
| GA | Detached Garage | NO | NULL | 1.0000 | NO | GA | ASSOC SFYI PRICING | YES |
| GB | Garage in Basement | NO | NULL | 1.0000 | NO | GB | ASSOC SFYI PRICING | NO |
| GP | Glazed (enclosed) Porch | NO | NULL | 1.0000 | NO | GP | ASSOC SFYI PRICING | YES |
| GR | Greenhouse | NO | NULL | 1.0000 | NO | GR | ASSOC SFYI PRICING | YES |
| HST | Half Story | YES | 1.00 | 0.5000 | YES | | UNIT PRICING | YES |
| LG | Living quarters over det garage | YES | NULL | NULL | YES | LG | ASSOC SFYI PRICING | YES |
| LQ | Living Quarter Extensions | YES | NULL | 1.0000 | YES | | UNIT PRICING | YES |
| MA | Main | YES | NULL | 1.0000 | YES | | UNIT PRICING | YES |
| MH | Mobile Home | YES | NULL | 1.0000 | NO | MH | ASSOC SFYI PRICING | NO |

| Code | Full Description | Finished | Unit Price | Sketch Factor | Size Adj | Assoc. SFYI | Pricing Info | Sub Area Detail |
|---|---|---|---|---|---|---|---|---|
| MSRY | Masonry Foundation | NO | .15 | 1.0000 | NO | | UNIT PRICING | YES |
| OP | Open Porch | NO | NULL | NULL | NO | OP | ASSOC SFYI PRICING | YES |
| OQS | 1/4 Story | YES | 1.00 | 0.2000 | YES | | UNIT PRICING | YES |
| PA | Attached Patio/Stoop | NO | NULL | NULL | NO | PA | ASSOC SFYI PRICING | YES |
| PIER | PIER Foundation | NO | 0.01 | 1.0000 | NO | | UNIT PRICING | YES |
| PR | Patio with Roof (Canopy) | NO | NULL | NULL | NO | PR | ASSOC SFYI PRICING | YES |
| SA | Special Addition/Storage | NO | NULL | NULL | NO | SA | ASSOC SFYI PRICING | YES |
| SLAB | SLAB Foundation | NO | 0.00 | 1.0000 | NO | | UNIT PRICING | YES |
| SP | Screened Porch | NO | NULL | NULL | NO | SP | ASSOC SFYI PRICING | YES |
| SW | Swimming Pool | NO | NULL | NULL | NO | SW | ASSOC SFYI PRICING | YES |
| TC | Tennis Court | NO | NULL | 1.0000 | NO | TC | ASSOC SFYI PRICING | NO |
| TQS | 3/4 Story | YES | 1.00 | 0.7000 | YES | | UNIT PRICING | YES |
| UK | Unknown | NO | NULL | 1.0000 | NO | | UNIT PRICING | YES |
| US04 | Upper Story 04% | YES | 1.00 | 0.0400 | YES | | UNIT PRICING | YES |
| US07 | Upper Story 07% | YES | 1.00 | 0.0700 | YES | | UNIT PRICING | YES |
| US11 | Upper Story 11% | YES | 1.00 | 0.1100 | YES | | UNIT PRICING | YES |
| US15 | Upper Story 15% | YES | 1.00 | 0.1500 | YES | | UNIT PRICING | YES |
| US20 | Upper Story 20% | YES | 1.00 | 0.2000 | YES | | UNIT PRICING | YES |
| US30 | Upper Story 30% | YES | 1.00 | 0.3000 | YES | | UNIT PRICING | YES |
| US40 | Upper Story 40% | YES | 1.00 | 0.4000 | YES | | UNIT PRICING | YES |
| US50 | Upper Story 50% | YES | 1.00 | 0.5000 | YES | | UNIT PRICING | YES |
| US60 | Upper Story 60% | YES | 1.00 | 0.6000 | YES | | UNIT PRICING | YES |
| US70 | Upper Story 70% | YES | 1.00 | 0.7000 | YES | | UNIT PRICING | YES |
| US80 | Upper Story 80% | YES | 1.00 | 0.8000 | YES | | UNIT PRICING | YES |
| US90 | Upper Story 90% | YES | 1.00 | 0.9000 | YES | | UNIT PRICING | YES |
| UT | Utility Building | NO | NULL | 1.0000 | NO | UT | ASSOC SFYI PRICING | NO |

**Foundation Types**

| Code | Full Description | Index |
|---|---|---|
| H | Half Basement/Half Crawl | NULL |
| M | Masonry | NULL |
| P | Pier | NULL |
| Q | 3/4 Basement | NULL |
| S | Slab | NULL |
| T | 1/4 Basement & 3/4 Crawl | NULL |

**Interior Wall Types**

| Code | Full Description | Index |
|---|---|---|
| D | Dry Wall | NULL |
| L | Lath/Plaster | NULL |
| P | Panel | NULL |
| U | Unfinished | NULL |

**Commercial Building Class**

| *Building Group Code* | *Building Group Description* | *Table Field* | *Factor* |
|---|---|---|---|
| 1 | Office | A | 1.30 |
| 1 | Office | B | 1.20 |
| 1 | Office | C | 1.00 |
| 1 | Office | D | 0.95 |
| 1 | Office | S | 0.90 |
| 10 | Farm Bldgs | A | 1.30 |
| 10 | Farm Bldgs | B | 1.20 |
| 10 | Farm Bldgs | C | 1.00 |
| 10 | Farm Bldgs | D | 0.95 |
| 10 | Farm Bldgs | S | 0.90 |
| 2 | Commercial | A | 1.30 |
| 2 | Commercial | B | 1.20 |
| 2 | Commercial | C | 1.00 |
| 2 | Commercial | D | 0.95 |
| 2 | Commercial | S | 0.90 |
| 3 | Institution | A | 1.30 |
| 3 | Institution | B | 1.20 |
| 3 | Institution | C | 1.00 |
| 3 | Institution | D | 0.95 |
| 3 | Institution | S | 0.90 |
| 4 | Apartments | A | 1.30 |
| 4 | Apartments | B | 1.20 |
| 4 | Apartments | C | 1.00 |
| 4 | Apartments | D | 0.95 |
| 4 | Apartments | S | 0.90 |
| 5 | Industrial | A | 1.30 |
| 5 | Industrial | B | 1.20 |
| 5 | Industrial | C | 1.00 |
| 5 | Industrial | D | 0.95 |
| 5 | Industrial | S | 0.90 |
| 6 | Retail | A | 1.30 |
| 6 | Retail | B | 1.20 |
| 6 | Retail | C | 1.00 |
| 6 | Retail | D | 0.95 |
| 6 | Retail | S | 0.90 |
| 7 | Government | A | 1.30 |
| 7 | Government | B | 1.20 |
| 7 | Government | C | 1.00 |
| 7 | Government | D | 0.95 |

| *Building Group Code* | *Building Group Description* | *Table Field* | *Factor* |
|---|---|---|---|
| 7 | Government | S | 0.90 |
| 8 | Hotel/Motel | A | 1.30 |
| 8 | Hotel/Motel | B | 1.20 |
| 8 | Hotel/Motel | C | 1.00 |
| 8 | Hotel/Motel | D | 0.95 |
| 8 | Hotel/Motel | S | 0.90 |
| 9 | Warehouses | A | 1.30 |
| 9 | Warehouses | B | 1.20 |
| 9 | Warehouses | C | 1.00 |
| 9 | Warehouses | D | 0.95 |
| 9 | Warehouses | S | 0.90 |
| C | Commercial | A | 1.30 |
| C | Commercial | B | 1.20 |
| C | Commercial | C | 1.00 |
| C | Commercial | D | 0.95 |
| C | Commercial | S | 0.90 |

**Commercial Cost Multiplier**

These codes are a combination of current cost and local multiplier for the Classes (A, B, C, D, S) and Sections (11 through 18) of Marshall and Swift.

| Code | Description | Full Description | Value Effect |
|---|---|---|---|
| A11 | S: 4+ A/C/H | STEEL - 4+ STY APTS/CLUBS/HOTELS | 0.99750000 |
| A12 | S: CD/A/M | STEEL - COMMERCIAL DWELLINGS/APTS/MOTELS | 1.01650000 |
| A13 | S: ST/COM | STEEL - STORES/COMMERCIALS | 0.96900000 |
| A14 | S: GR/IN/WH | STEEL - GARAGES/INDUSTRIALS/LOFTS/WAREHOUSES | 0.95950000 |
| A15 | S: OF/MD/PB | STEEL - OFFICES/MEDICAL/PUBLIC BUILDINGS | 0.96900000 |
| A16 | S: CH/TR/AU | STEEL - CHURCHES/THEATERS/AUDITORIUMS | 0.96900000 |
| A17 | S: SH/FRM | STEEL - SHEDS/FARM BUILDINGS | 0.97850000 |
| A18 | S: SCH/CLS | STEEL - SCHOOLS/CLASSROOMS | 0.99750000 |
| B11 | C: 4+ A/C/H | CONCRETE - 4+ STY APTS/CLUBS/HOTELS | 1.03790000 |
| B12 | C: CD/A/M | CONCRETE - COMMERCIAL DWELLINGS/APTS/MOTELS | 1.03790000 |
| B13 | C: ST/COM | CONCRETE - STORES/COMMERCIALS | 0.98940000 |
| B14 | C: GR/IN/WH | CONCRETE - GARAGES/INDUSTRIALS/LOFTS/WAREHOUSES | 1.00880000 |
| B15 | C: OF/MD/PB | CONCRETE - OFFICES/MEDICAL/PUBLIC BUILDINGS | 0.98940000 |
| B16 | C: CH/TR/AU | CONCRETE - CHURCHES/THEATERS/AUDITORIUMS | 0.99910000 |
| B17 | C: SH/FRM | CONCRETE - SHEDS/FARM BUILDINGS | 1.01850000 |
| B18 | C: SCH/CLS | CONCRETE - SCHOOLS/CLASSROOMS | 1.03790000 |
| C11 | MA: 4+ A/C/H | MASONRY - 4+ STY APTS/CLUBS/HOTELS | 0.97760000 |
| C12 | MA: CD/A/M | MASONRY - COMMERCIAL DWELLINGS/APTS/MOTELS | 0.97760000 |
| C13 | MA: ST/COM | MASONRY - STORES/COMMERCIALS | 0.96820000 |
| C14 | MA: GR/IN/WH | MASONRY - GARAGES/INDUSTRIALS/LOFTS/WAREHOUSES | 0.95880000 |
| C15 | MA: OF/MD/PB | MASONRY - OFFICES/MEDICAL/PUBLIC BUILDINGS | 0.97760000 |
| C16 | MA: CH/TR/AU | MASONRY - CHURCHES/THEATERS/AUDITORIUMS | 0.97760000 |
| C17 | MA: SH/FRM | MASONRY - SHEDS/FARM BUILDINGS | 0.98700000 |
| C18 | MA: SCH/CLS | MASONRY - SCHOOLS/CLASSROOMS | 0.95880000 |
| D11 | W: 4+ A/C/H | WOOD - 4+ STY APTS/CLUBS/HOTELS | 0.95880000 |
| D12 | W: CD/A/M | WOOD - COMMERCIAL DWELLINGS/APTS/MOTELS | 0.97760000 |
| D13 | W: ST/COM | WOOD - STORES/COMMERCIALS | 0.95580000 |
| D14 | W: GR/IN/WH | WOOD - GARAGES/INDUSTRIALS/LOFTS/WAREHOUSES | 0.94940000 |
| D15 | W: OF/MD/PB | WOOD - OFFICES/MEDICAL/PUBLIC BUILDINGS | 0.95580000 |
| D16 | W: CH/TR/AU | WOOD - CHURCHES/THEATERS/AUDITORIUMS | 0.96820000 |
| D17 | W: SH/FRM | WOOD - SHEDS/FARM BUILDINGS | 0.95880000 |
| D18 | W: SCH/CLS | WOOD - SCHOOLS/CLASSROOMS | 0.95880000 |
| S11 | ME: 4+ A/C/H | METAL - 4+ STY APTS/CLUBS/HOTELS | 1.02720000 |
| S12 | ME: CD/A/M | METAL - COMMERCIAL DWELLINGS/APTS/MOTELS | 1.03680000 |
| S13 | ME: ST/COM | METAL - STORES/COMMERCIALS | 0.99840000 |
| S14 | ME: GR/IN/WH | METAL - GARAGES/INDUSTRIALS/LOFTS/WAREHOUSES | 0.98880000 |
| S15 | ME: OF/MD/PB | METAL - OFFICES/MEDICAL/PUBLIC BUILDINGS | 1.00800000 |

| | | | |
|---|---|---|---|
| S16 | ME: CH/TR/AU | METAL - CHURCHES/THEATERS/AUDITORIUMS | 0.98880000 |
| S17 | ME: SH/FRM | METAL - SHEDS/FARM BUILDINGS | 0.97920000 |
| S18 | ME: SCH/CLS | METAL - SCHOOLS/CLASSROOMS | 1.01760000 |

**Condo Floor Levels**

| *BuildingGroup* | *Table* | *TableField* | *Factor* |
|---|---|---|---|
| C | TABLEFLOORLEVEL | 1 | 1.00 |
| C | TABLEFLOORLEVEL | 2 | 1.05 |
| C | TABLEFLOORLEVEL | 3 | 1.10 |
| C | TABLEFLOORLEVEL | 4 | 1.15 |
| C | TABLEFLOORLEVEL | 5 | 1.20 |
| C | TABLEFLOORLEVEL | 6 | 1.25 |
| C | TABLEFLOORLEVEL | L | 0.95 |

**Partition Index Types**

| *Code* | *Full Description* | *Index* |
|---|---|---|
| 0 | NONE | NULL |
| 1 | BELOW NORMAL | NULL |
| 2 | NORMAL | NULL |
| 3 | ABOVE NORMAL | NULL |
| T | Typical | NULL |

**Alternate Types (Design Factors)**

This would be used to capture design elements not captured in construction grade, building group base rate and/or other construction factors.

| *Code* | *Full Description* | *Index* | *Is Finished?* |
|---|---|---|---|
| APT | APT | 1.00000000 | UNFINISHED |
| BS_M | Multiple Finished Basements | 1.00000000 | FINISHED |
| BSFN | Finished Basement | 2.00000000 | FINISHED |
| D100 | Design Factor 1.00 | 2.00000000 | FINISHED |
| D105 | Design Factor 1.05 | 2.05000000 | FINISHED |
| D110 | Design Factor 1.10 | 2.10000000 | FINISHED |
| D120 | Design Factor 1.20 | 2.20000000 | FINISHED |
| D135 | Design Factor 1.35 | 2.35000000 | FINISHED |
| D140 | Design Factor 1.40 | 2.40000000 | FINISHED |
| D150 | Design Factor 1.50 | 2.50000000 | FINISHED |
| D200 | Design Factor 2.00 | 3.00000000 | FINISHED |
| DF_M | Design Factor Multiple Areas | 1.00000000 | FINISHED |
| DF01 | Design Factor .01 | 1.01000000 | FINISHED |
| DF02 | Design Factor .02 | 1.02000000 | FINISHED |
| DF03 | Design Factor .03 | 1.03000000 | FINISHED |
| DF04 | Design Factor .04 | 1.04000000 | FINISHED |

| | | | |
|---|---|---|---|
| DF05 | Design Factor .05 | 1.05000000 | FINISHED |
| DF06 | Design Factor .06 | 1.06000000 | FINISHED |
| DF07 | Design Factor .07 | 1.07000000 | FINISHED |
| DF08 | Design Factor .08 | 1.08000000 | FINISHED |
| DF09 | Design Factor .09 | 1.09000000 | FINISHED |
| DF10 | Design Factor .10 | 1.10000000 | FINISHED |
| DF11 | Design Factor .11 | 1.11000000 | FINISHED |
| DF12 | Design Factor .12 | 1.12000000 | FINISHED |
| DF13 | Design Factor .13 | 1.13000000 | FINISHED |
| DF14 | Design Factor .14 | 1.14000000 | FINISHED |
| DF15 | Design Factor .15 | 1.15000000 | FINISHED |
| DF16 | Design Factor .16 | 1.16000000 | FINISHED |
| DF17 | Design Factor .17 | 1.17000000 | FINISHED |
| DF18 | Design Factor .18 | 1.18000000 | FINISHED |
| DF19 | Design Factor .19 | 1.19000000 | FINISHED |
| DF20 | Design Factor .20 | 1.20000000 | FINISHED |
| DF21 | Design Factor .21 | 1.21000000 | FINISHED |
| DF22 | Design Factor .22 | 1.22000000 | FINISHED |
| DF23 | Design Factor .23 | 1.23000000 | FINISHED |
| DF24 | Design Factor .24 | 1.24000000 | FINISHED |
| DF25 | Design Factor .25 | 1.25000000 | FINISHED |
| DF26 | Design Factor .26 | 1.26000000 | FINISHED |
| DF27 | Design Factor .27 | 1.27000000 | FINISHED |
| DF28 | Design Factor .28 | 1.28000000 | FINISHED |
| DF29 | Design Factor .29 | 1.29000000 | FINISHED |
| DF30 | Design Factor .30 | 1.30000000 | FINISHED |
| DF31 | Design Factor .31 | 1.31000000 | FINISHED |
| DF32 | Design Factor .32 | 1.32000000 | FINISHED |
| DF33 | Design Factor .33 | 1.33000000 | FINISHED |
| DF34 | Design Factor .34 | 1.34000000 | FINISHED |
| DF35 | Design Factor .35 | 1.35000000 | FINISHED |
| DF36 | Design Factor .36 | 1.36000000 | FINISHED |
| DF37 | Design Factor .37 | 1.37000000 | FINISHED |
| DF38 | Design Factor .38 | 1.38000000 | FINISHED |
| DF39 | Design Factor .39 | 1.39000000 | FINISHED |
| DF40 | Design Factor .40 | 1.40000000 | FINISHED |
| DF41 | Design Factor .41 | 1.41000000 | FINISHED |
| DF42 | Design Factor .42 | 1.42000000 | FINISHED |
| DF43 | Design Factor .43 | 1.43000000 | FINISHED |
| DF44 | Design Factor .44 | 1.44000000 | FINISHED |
| DF45 | Design Factor .45 | 1.45000000 | FINISHED |

| | | | |
|---|---|---|---|
| DF46 | Design Factor .46 | 1.46000000 | FINISHED |
| DF47 | Design Factor .47 | 1.47000000 | FINISHED |
| DF48 | Design Factor .48 | 1.48000000 | FINISHED |
| DF49 | Design Factor .49 | 1.49000000 | FINISHED |
| DF50 | Design Factor .50 | 1.50000000 | FINISHED |
| DF51 | Design Factor .51 | 1.51000000 | FINISHED |
| DF52 | Design Factor .52 | 1.52000000 | FINISHED |
| DF53 | Design Factor .53 | 1.53000000 | FINISHED |
| DF54 | Design Factor .54 | 1.54000000 | FINISHED |
| DF55 | Design Factor .55 | 1.55000000 | FINISHED |
| DF56 | Design Factor .56 | 1.56000000 | FINISHED |
| DF57 | Design Factor .57 | 1.57000000 | FINISHED |
| DF58 | Design Factor .58 | 1.58000000 | FINISHED |
| DF59 | Design Factor .59 | 1.59000000 | FINISHED |
| DF60 | Design Factor .60 | 1.60000000 | FINISHED |
| DF61 | Design Factor .61 | 1.61000000 | FINISHED |
| DF62 | Design Factor .62 | 1.62000000 | FINISHED |
| DF63 | Design Factor .63 | 1.63000000 | FINISHED |
| DF64 | Design Factor .64 | 1.64000000 | FINISHED |
| DF65 | Design Factor .65 | 1.65000000 | FINISHED |
| DF66 | Design Factor .66 | 1.66000000 | FINISHED |
| DF67 | Design Factor .67 | 1.67000000 | FINISHED |
| DF68 | Design Factor .68 | 1.68000000 | FINISHED |
| DF69 | Design Factor .69 | 1.69000000 | FINISHED |
| DF70 | Design Factor .70 | 1.70000000 | FINISHED |
| DF71 | Design Factor .71 | 1.71000000 | FINISHED |
| DF72 | Design Factor .72 | 1.72000000 | FINISHED |
| DF73 | Design Factor .73 | 1.73000000 | FINISHED |
| DF74 | Design Factor .74 | 1.74000000 | FINISHED |
| DF75 | Design Factor .75 | 1.75000000 | FINISHED |
| DF76 | Design Factor .76 | 1.76000000 | FINISHED |
| DF77 | Design Factor .77 | 1.77000000 | FINISHED |
| DF78 | Design Factor .78 | 1.78000000 | FINISHED |
| DF79 | Design Factor .79 | 1.79000000 | FINISHED |
| DF80 | Design Factor .80 | 1.80000000 | FINISHED |
| DF81 | Design Factor .81 | 1.81000000 | FINISHED |
| DF82 | Design Factor .82 | 1.82000000 | FINISHED |
| DF83 | Design Factor .83 | 1.83000000 | FINISHED |
| DF84 | Design Factor .84 | 1.84000000 | FINISHED |
| DF85 | Design Factor .85 | 1.85000000 | FINISHED |
| DF86 | Design Factor .86 | 1.86000000 | FINISHED |

| | | | |
|---|---|---|---|
| DF87 | Design Factor .87 | 1.87000000 | FINISHED |
| DF88 | Design Factor .88 | 1.88000000 | FINISHED |
| DF89 | Design Factor .89 | 1.89000000 | FINISHED |
| DF90 | Design Factor .90 | 1.90000000 | FINISHED |
| DF91 | Design Factor .91 | 1.91000000 | FINISHED |
| DF92 | Design Factor .92 | 1.92000000 | FINISHED |
| DF93 | Design Factor .93 | 1.93000000 | FINISHED |
| DF94 | Design Factor .94 | 1.94000000 | FINISHED |
| DF95 | Design Factor .95 | 1.95000000 | FINISHED |
| DF96 | Design Factor .96 | 1.96000000 | FINISHED |
| DF97 | Design Factor .97 | 1.97000000 | FINISHED |
| DF98 | Design Factor .98 | 1.98000000 | FINISHED |
| DF99 | Design Factor .99 | 1.99000000 | FINISHED |
| U100 | UnFin Design Factor 1.00 | 2.00000000 | UNFINISHED |
| U105 | UnFin Design Factor 1.05 | 2.05000000 | UNFINISHED |
| U110 | UnFin Design Factor 1.10 | 2.10000000 | UNFINISHED |
| U120 | UnFin Design Factor 1.20 | 2.20000000 | UNFINISHED |
| U135 | UnFin Design Factor 1.35 | 2.35000000 | UNFINISHED |
| U140 | UnFin Design Factor 1.40 | 2.40000000 | UNFINISHED |
| U150 | UnFin Design Factor 1.50 | 2.50000000 | UNFINISHED |
| U200 | UnFin Design Factor 2.00 | 3.00000000 | UNFINISHED |
| UF_M | Design Factor Multiple Areas | 1.00000000 | UNFINISHED |
| UF01 | UnFin Design Factor .01 | 1.01000000 | UNFINISHED |
| UF02 | UnFin Design Factor .02 | 1.02000000 | UNFINISHED |
| UF03 | UnFin Design Factor .03 | 1.03000000 | UNFINISHED |
| UF04 | UnFin Design Factor .04 | 1.04000000 | UNFINISHED |
| UF05 | UnFin Design Factor .05 | 1.05000000 | UNFINISHED |
| UF06 | UnFin Design Factor .06 | 1.06000000 | UNFINISHED |
| UF07 | UnFin Design Factor .07 | 1.07000000 | UNFINISHED |
| UF08 | UnFin Design Factor .08 | 1.08000000 | UNFINISHED |
| UF09 | UnFin Design Factor .09 | 1.09000000 | UNFINISHED |
| UF10 | UnFin Design Factor .10 | 1.10000000 | UNFINISHED |
| UF11 | UnFin Design Factor .11 | 1.11000000 | UNFINISHED |
| UF12 | UnFin Design Factor .12 | 1.12000000 | UNFINISHED |
| UF13 | UnFin Design Factor .13 | 1.13000000 | UNFINISHED |
| UF14 | UnFin Design Factor .14 | 1.14000000 | UNFINISHED |
| UF15 | UnFin Design Factor .15 | 1.15000000 | UNFINISHED |
| UF16 | UnFin Design Factor .16 | 1.16000000 | UNFINISHED |
| UF17 | UnFin Design Factor .17 | 1.17000000 | UNFINISHED |
| UF18 | UnFin Design Factor .18 | 1.18000000 | UNFINISHED |
| UF19 | UnFin Design Factor .19 | 1.19000000 | UNFINISHED |

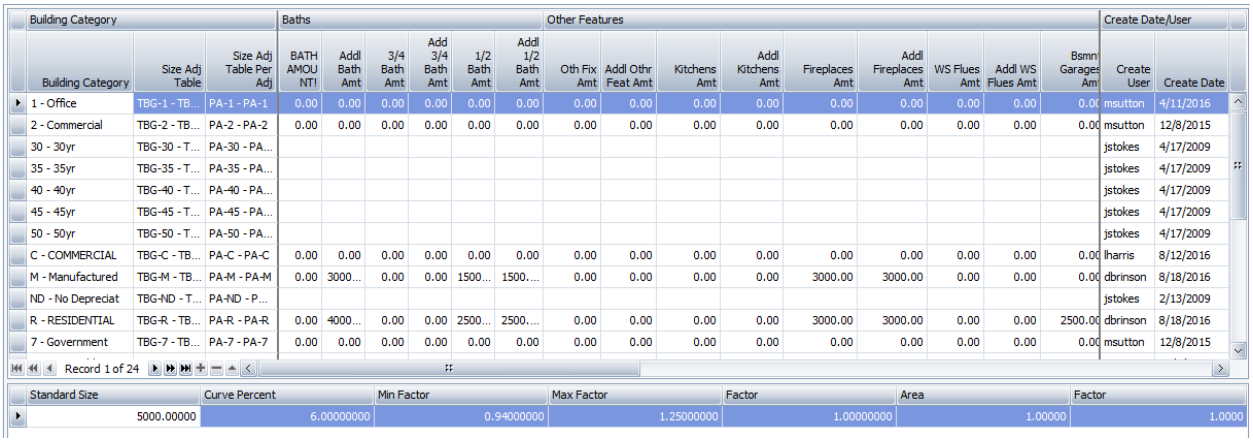
| | | | |
|---|---|---|---|
| UF20 | UnFin Design Factor .20 | 1.20000000 | UNFINISHED |
| UF21 | UnFin Design Factor .21 | 1.21000000 | UNFINISHED |
| UF22 | UnFin Design Factor .22 | 1.22000000 | UNFINISHED |
| UF23 | UnFin Design Factor .23 | 1.23000000 | UNFINISHED |
| UF24 | UnFin Design Factor .24 | 1.24000000 | UNFINISHED |
| UF25 | UnFin Design Factor .25 | 1.25000000 | UNFINISHED |
| UF26 | UnFin Design Factor .26 | 1.26000000 | UNFINISHED |
| UF27 | UnFin Design Factor .27 | 1.27000000 | UNFINISHED |
| UF28 | UnFin Design Factor .28 | 1.28000000 | UNFINISHED |
| UF29 | UnFin Design Factor .29 | 1.29000000 | UNFINISHED |
| UF30 | UnFin Design Factor .30 | 1.30000000 | UNFINISHED |
| UF31 | UnFin Design Factor .31 | 1.31000000 | UNFINISHED |
| UF32 | UnFin Design Factor .32 | 1.32000000 | UNFINISHED |
| UF33 | UnFin Design Factor .33 | 1.33000000 | UNFINISHED |
| UF34 | UnFin Design Factor .34 | 1.34000000 | UNFINISHED |
| UF35 | UnFin Design Factor .35 | 1.35000000 | UNFINISHED |
| UF36 | UnFin Design Factor .36 | 1.36000000 | UNFINISHED |
| UF37 | UnFin Design Factor .37 | 1.37000000 | UNFINISHED |
| UF38 | UnFin Design Factor .38 | 1.38000000 | UNFINISHED |
| UF39 | UnFin Design Factor .39 | 1.39000000 | UNFINISHED |
| UF40 | UnFin Design Factor .40 | 1.40000000 | UNFINISHED |
| UF41 | UnFin Design Factor .41 | 1.41000000 | UNFINISHED |
| UF42 | UnFin Design Factor .42 | 1.42000000 | UNFINISHED |
| UF43 | UnFin Design Factor .43 | 1.43000000 | UNFINISHED |
| UF44 | UnFin Design Factor .44 | 1.44000000 | UNFINISHED |
| UF45 | UnFin Design Factor .45 | 1.45000000 | UNFINISHED |
| UF46 | UnFin Design Factor .46 | 1.46000000 | UNFINISHED |
| UF47 | UnFin Design Factor .47 | 1.47000000 | UNFINISHED |
| UF48 | UnFin Design Factor .48 | 1.48000000 | UNFINISHED |
| UF49 | UnFin Design Factor .49 | 1.49000000 | UNFINISHED |
| UF50 | UnFin Design Factor .50 | 1.50000000 | UNFINISHED |
| UF51 | UnFin Design Factor .51 | 1.51000000 | UNFINISHED |
| UF52 | UnFin Design Factor .52 | 1.52000000 | UNFINISHED |
| UF53 | UnFin Design Factor .53 | 1.53000000 | UNFINISHED |
| UF54 | UnFin Design Factor .54 | 1.54000000 | UNFINISHED |
| UF55 | UnFin Design Factor .55 | 1.55000000 | UNFINISHED |
| UF56 | UnFin Design Factor .56 | 1.56000000 | UNFINISHED |
| UF57 | UnFin Design Factor .57 | 1.57000000 | UNFINISHED |
| UF58 | UnFin Design Factor .58 | 1.58000000 | UNFINISHED |
| UF59 | UnFin Design Factor .59 | 1.59000000 | UNFINISHED |
| UF60 | UnFin Design Factor .60 | 1.60000000 | UNFINISHED |

| *Code* | *Full Description* | *Index* | *Is Finished?* |
|---|---|---|---|
| UF61 | UnFin Design Factor .61 | 1.61000000 | UNFINISHED |
| UF62 | UnFin Design Factor .62 | 1.62000000 | UNFINISHED |
| UF63 | UnFin Design Factor .63 | 1.63000000 | UNFINISHED |
| UF64 | UnFin Design Factor .64 | 1.64000000 | UNFINISHED |
| UF65 | UnFin Design Factor .65 | 1.65000000 | UNFINISHED |
| UF66 | UnFin Design Factor .66 | 1.66000000 | UNFINISHED |
| UF67 | UnFin Design Factor .67 | 1.67000000 | UNFINISHED |
| UF68 | UnFin Design Factor .68 | 1.68000000 | UNFINISHED |
| UF69 | UnFin Design Factor .69 | 1.69000000 | UNFINISHED |
| UF70 | UnFin Design Factor .70 | 1.70000000 | UNFINISHED |
| UF71 | UnFin Design Factor .71 | 1.71000000 | UNFINISHED |
| UF72 | UnFin Design Factor .72 | 1.72000000 | UNFINISHED |
| UF73 | UnFin Design Factor .73 | 1.73000000 | UNFINISHED |
| UF74 | UnFin Design Factor .74 | 1.74000000 | UNFINISHED |
| UF75 | UnFin Design Factor .75 | 1.75000000 | UNFINISHED |
| UF76 | UnFin Design Factor .76 | 1.76000000 | UNFINISHED |
| UF77 | UnFin Design Factor .77 | 1.77000000 | UNFINISHED |
| UF78 | UnFin Design Factor .78 | 1.78000000 | UNFINISHED |
| UF79 | UnFin Design Factor .79 | 1.79000000 | UNFINISHED |
| UF80 | UnFin Design Factor .80 | 1.80000000 | UNFINISHED |
| UF81 | UnFin Design Factor .81 | 1.81000000 | UNFINISHED |
| UF82 | UnFin Design Factor .82 | 1.82000000 | UNFINISHED |
| UF83 | UnFin Design Factor .83 | 1.83000000 | UNFINISHED |
| UF84 | UnFin Design Factor .84 | 1.84000000 | UNFINISHED |
| UF85 | UnFin Design Factor .85 | 1.85000000 | UNFINISHED |
| UF86 | UnFin Design Factor .86 | 1.86000000 | UNFINISHED |
| UF87 | UnFin Design Factor .87 | 1.87000000 | UNFINISHED |
| UF88 | UnFin Design Factor .88 | 1.88000000 | UNFINISHED |
| UF89 | UnFin Design Factor .89 | 1.89000000 | UNFINISHED |
| UF90 | UnFin Design Factor .90 | 1.90000000 | UNFINISHED |
| UF91 | UnFin Design Factor .91 | 1.91000000 | UNFINISHED |
| UF92 | UnFin Design Factor .92 | 1.92000000 | UNFINISHED |
| UF93 | UnFin Design Factor .93 | 1.93000000 | UNFINISHED |
| UF94 | UnFin Design Factor .94 | 1.94000000 | UNFINISHED |
| UF95 | UnFin Design Factor .95 | 1.95000000 | UNFINISHED |
| UF96 | UnFin Design Factor .96 | 1.96000000 | UNFINISHED |
| UF97 | UnFin Design Factor .97 | 1.97000000 | UNFINISHED |
| UF98 | UnFin Design Factor .98 | 1.98000000 | UNFINISHED |
| UF99 | UnFin Design Factor .99 | 1.99000000 | UNFINISHED |
| | | | |

**Plumbing Types**

| *Code* | *Full Description* | *Index* |
|---|---|---|
| 0 | Excellent | NULL |
| 1 | Very Good | NULL |
| 2 | Good | NULL |
| 3 | Average | NULL |
| 4 | Fair | NULL |
| 5 | Poor | NULL |

**Other Features Pricing**



| Building Category | Baths | | | | | | Other Features | | | | | | | | Create Date/User | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Building Category | Size Adj Table | Size Adj Table Per Adj | BATH AMOUNT | Addl Bath Amt | 3/4 Bath Amt | Add 3/4 Bath Amt | 1/2 Bath Amt | Addl 1/2 Bath Amt | Oth Fix Amt | Addl Othr Feat Amt | Kitchens Amt | Addl Kitchens Amt | Fireplaces Amt | Addl Fireplaces Amt | WS Flues Amt | Addl WS Flues Amt | Bsmnt Garages Amt | Create User | Create Date |
| 1 - Office | TBG-1 - TB... | PA-1 - PA-1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | msutton | 4/11/2016 |
| 2 - Commercial | TBG-2 - TB... | PA-2 - PA-2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | msutton | 12/8/2015 |
| 30 - 30yr | TBG-30 - T... | PA-30 - PA... | | | | | | | | | | | | | | | | jstokes | 4/17/2009 |
| 35 - 35yr | TBG-35 - T... | PA-35 - PA... | | | | | | | | | | | | | | | | jstokes | 4/17/2009 |
| 40 - 40yr | TBG-40 - T... | PA-40 - PA... | | | | | | | | | | | | | | | | jstokes | 4/17/2009 |
| 45 - 45yr | TBG-45 - T... | PA-45 - PA... | | | | | | | | | | | | | | | | jstokes | 4/17/2009 |
| 50 - 50yr | TBG-50 - T... | PA-50 - PA... | | | | | | | | | | | | | | | | jstokes | 4/17/2009 |
| C - COMMERCIAL | TBG-C - TB... | PA-C - PA-C | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | lharris | 8/12/2016 |
| M - Manufactured | TBG-M - TB... | PA-M - PA-M | 0.00 | 3000... | 0.00 | 0.00 | 1500... | 1500.... | 0.00 | 0.00 | 0.00 | 0.00 | 3000.00 | 3000.00 | 0.00 | 0.00 | 0.00 | dbrinson | 8/18/2016 |
| ND - No Depreciat | TBG-ND - T... | PA-ND - P... | | | | | | | | | | | | | | | | jstokes | 2/13/2009 |
| R - RESIDENTIAL | TBG-R - TB... | PA-R - PA-R | 0.00 | 4000... | 0.00 | 0.00 | 2500... | 2500.... | 0.00 | 0.00 | 0.00 | 0.00 | 3000.00 | 3000.00 | 0.00 | 0.00 | 2500.00 | dbrinson | 8/18/2016 |
| 7 - Government | TBG-7 - TB... | PA-7 - PA-7 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | msutton | 12/8/2015 |

Record 1 of 24

| Standard Size | Curve Percent | Min Factor | Max Factor | Factor | Area | Factor |
|---|---|---|---|---|---|---|
| 5000.00000 | 6.00000000 | 0.94000000 | 1.25000000 | 1.00000000 | 1.00000 | 1.0000 |

| Building Category | Size Adj Table | Size Adj Table Per Adj |
|---|---|---|
| 30 - 30yr | TBG-30 - TBG-30 | PA-30 - PA-30 |
| 35 - 35yr | TBG-35 - TBG-35 | PA-35 - PA-35 |
| 40 - 40yr | TBG-40 - TBG-40 | PA-40 - PA-40 |
| 45 - 45yr | TBG-45 - TBG-45 | PA-45 - PA-45 |
| 50 - 50yr | TBG-50 - TBG-50 | PA-50 - PA-50 |
| ND - No Depreciat | TBG-ND - TBG-ND | PA-ND - PA-ND |
| 20 - 20yr | TBG-20 - TBG-20 | PA-20 - PA-20 |
| 25 - 25yr | TBG-25 - TBG-25 | PA-25 - PA-25 |
| 60 - 60yr | TBG-60 - TBG-60 | PA-60 - PA-60 |
| 55 - 55yr | TBG-55 - TBG-55 | PA-55 - PA-55 |
| 70 - 70yr | TBG-70 - TBG-70 | PA-70 - PA-70 |

| Building Category | 1-Office | 2-Commercial | C-COMMERCIAL | M-Manufactured | R-RESIDENTIAL | 7-Government |
|---|---|---|---|---|---|---|
| Size Adj Table | TBG-1 - TBG-1 | TBG-2 - TBG-2 | TBG-C - TBG-C | TBG-M - TBG-M | TBG-R - TBG-R | TBG-7 - TBG-7 |
| Size Adj Table Per Adj | PA-1 - PA-1 | PA-2 - PA-2 | PA-C - PA-C | PA-M - PA-M | PA-R - PA-R | PA-7 - PA-7 |
| Addl Bath Amt | 0 | 0 | 0 | 3000 | 4000 | 0 |
| 1/2 Bath Amt | 0 | 0 | 0 | 1500 | 2500 | 0 |
| Addl 1/2 Bath Amt | 0 | 0 | 0 | 1500 | 2500 | 0 |
| Fireplaces Amt | 0 | 0 | 0 | 3000 | 3000 | 0 |
| Addl Fireplaces | 0 | 0 | 0 | 3000 | 3000 | 0 |
| Bsmnt Garages | 0 | 0 | 0 | 0 | 2500 | 0 |
| Addl Bsmnt Garages | 0 | 0 | 0 | 0 | 2500 | 0 |
| % AC Base | 0 | 0 | 0 | 875 | 875 | 0 |
| % AC/Unit | 0 | 0 | 0 | 1.5 | 1.5 | 0 |
| Percent Sprinkled Base | 7000 | 7000 | 7000 | 0 | 0 | 7000 |
| Percent Sprinkled Per Unit | 1.5 | 1.5 | 1.5 | 0 | 0 | 1.5 |
| Com Wall Base Amt | 0 | 0 | 25 | 0 | 25 | 0 |
| Std Ht/Flr | 12 | 12 | 12 | 0 | 0 | 12 |
| Std Ht Adj Perc | 2 | 2 | 2 | 0 | 1 | 2 |

| Building Category | 10 - Farm Bldgs | 9 - Warehouses | 5 - Industrial | 4 - Apartments | 6 - Retail | 3 - Institution | 8 - Hotel/Motel |
|---|---|---|---|---|---|---|---|
| Size Adj Table | TBG-10 - TBG-10 | TBG-9 - TBG-9 | TBG-5 - TBG-5 | TBG-4 - TBG-4 | TBG-6 - TBG-6 | TBG-3 - TBG-3 | TBG-8 - TBG-8 |
| Size Adj Table Per Adj | PA-10 - PA-10 | PA-9 - PA-9 | PA-5 - PA-5 | PA-4 - PA-4 | PA-6 - PA-6 | PA-3 - PA-3 | PA-8 - PA-8 |
| Addl Bath Amt | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1/2 Bath Amt | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Addl 1/2 Bath Amt | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fireplaces Amt | 0 | 0 | 0 | 3000 | 0 | 0 | 3000 |
| Addl Fireplaces | 0 | 0 | 0 | 3000 | 0 | 0 | 3000 |
| Bsmnt Garages | 0 | 0 | 0 | 1200 | 0 | 0 | 0 |
| Addl Bsmnt Garages | 0 | 0 | 0 | 1200 | 0 | 0 | 0 |
| % AC Base | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % AC/Unit | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Percent Sprinkled Base | 1500 | 7000 | 7000 | 7000 | 7000 | 7500 | 7000 |
| Percent Sprinkled Per Unit | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Com Wall Base Amt | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Std Ht/Flr | 10 | 14 | 14 | 10 | 12 | 12 | 10 |
| Std Ht Adj Perc | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

**DEPRECIATION TABLES**

**Residential**

| *DESCRIPTION* | *AGE* | *GD* | *AV* | *FR* | *PR* |
|---|---|---|---|---|---|
| Residential | 0 | 3.00 | 3.00 | 3.00 | 3.00 |
| Residential | 1 | 3.00 | 4.00 | 4.00 | 4.00 |
| Residential | 2 | 4.00 | 4.00 | 5.00 | 6.00 |
| Residential | 3 | 4.00 | 5.00 | 6.00 | 7.00 |
| Residential | 4 | 5.00 | 6.00 | 7.00 | 8.00 |
| Residential | 5 | 5.00 | 7.00 | 8.00 | 9.00 |
| Residential | 6 | 6.00 | 7.00 | 9.00 | 11.00 |
| Residential | 7 | 6.00 | 8.00 | 10.00 | 12.00 |
| Residential | 8 | 7.00 | 9.00 | 11.00 | 13.00 |
| Residential | 9 | 7.00 | 9.00 | 11.00 | 15.00 |
| Residential | 10 | 8.00 | 10.00 | 12.00 | 16.00 |
| Residential | 11 | 8.00 | 11.00 | 13.00 | 17.00 |
| Residential | 12 | 9.00 | 11.00 | 14.00 | 19.00 |
| Residential | 13 | 9.00 | 12.00 | 15.00 | 20.00 |
| Residential | 14 | 9.00 | 13.00 | 15.00 | 21.00 |
| Residential | 15 | 10.00 | 14.00 | 16.00 | 22.00 |
| Residential | 16 | 10.00 | 14.00 | 17.00 | 24.00 |
| Residential | 17 | 11.00 | 15.00 | 18.00 | 25.00 |
| Residential | 18 | 11.00 | 16.00 | 19.00 | 26.00 |
| Residential | 19 | 12.00 | 16.00 | 19.00 | 27.00 |
| Residential | 20 | 12.00 | 17.00 | 20.00 | 28.00 |
| Residential | 21 | 13.00 | 17.00 | 21.00 | 29.00 |
| Residential | 22 | 13.00 | 18.00 | 22.00 | 30.00 |
| Residential | 23 | 13.00 | 18.00 | 23.00 | 31.00 |
| Residential | 24 | 14.00 | 19.00 | 23.00 | 32.00 |
| Residential | 25 | 14.00 | 19.00 | 24.00 | 33.00 |
| Residential | 26 | 15.00 | 20.00 | 25.00 | 33.00 |
| Residential | 27 | 15.00 | 21.00 | 26.00 | 34.00 |
| Residential | 28 | 16.00 | 21.00 | 27.00 | 35.00 |
| Residential | 29 | 16.00 | 22.00 | 27.00 | 36.00 |
| Residential | 30 | 16.00 | 22.00 | 28.00 | 37.00 |
| Residential | 31 | 17.00 | 23.00 | 29.00 | 38.00 |
| Residential | 32 | 17.00 | 23.00 | 30.00 | 39.00 |
| Residential | 33 | 18.00 | 24.00 | 30.00 | 40.00 |
| Residential | 34 | 18.00 | 24.00 | 31.00 | 41.00 |
| Residential | 35 | 18.00 | 25.00 | 31.00 | 42.00 |

| | | | | | |
|---|---|---|---|---|---|
| Residential | 36 | 19.00 | 26.00 | 32.00 | 43.00 |
| Residential | 37 | 19.00 | 26.00 | 33.00 | 43.00 |
| Residential | 38 | 20.00 | 27.00 | 33.00 | 44.00 |
| Residential | 39 | 20.00 | 27.00 | 34.00 | 45.00 |
| Residential | 40 | 21.00 | 28.00 | 34.00 | 46.00 |
| Residential | 41 | 21.00 | 28.00 | 35.00 | 47.00 |
| Residential | 42 | 21.00 | 29.00 | 36.00 | 48.00 |
| Residential | 43 | 22.00 | 29.00 | 36.00 | 48.00 |
| Residential | 44 | 22.00 | 30.00 | 37.00 | 49.00 |
| Residential | 45 | 22.00 | 31.00 | 37.00 | 50.00 |
| Residential | 46 | 23.00 | 31.00 | 38.00 | 51.00 |
| Residential | 47 | 23.00 | 32.00 | 39.00 | 52.00 |
| Residential | 48 | 24.00 | 32.00 | 39.00 | 53.00 |
| Residential | 49 | 24.00 | 33.00 | 40.00 | 53.00 |
| Residential | 50 | 24.00 | 33.00 | 40.00 | 54.00 |
| Residential | 51 | 25.00 | 34.00 | 41.00 | 55.00 |
| Residential | 52 | 25.00 | 34.00 | 41.00 | 56.00 |
| Residential | 53 | 25.00 | 35.00 | 42.00 | 56.00 |
| Residential | 54 | 26.00 | 35.00 | 43.00 | 57.00 |
| Residential | 55 | 26.00 | 36.00 | 43.00 | 57.00 |
| Residential | 56 | 26.00 | 36.00 | 44.00 | 58.00 |
| Residential | 57 | 27.00 | 37.00 | 44.00 | 59.00 |
| Residential | 58 | 27.00 | 37.00 | 45.00 | 59.00 |
| Residential | 59 | 28.00 | 38.00 | 46.00 | 60.00 |
| Residential | 60 | 28.00 | 38.00 | 46.00 | 60.00 |
| Residential | 61 | 28.00 | 39.00 | 47.00 | 61.00 |
| Residential | 62 | 29.00 | 39.00 | 47.00 | 61.00 |
| Residential | 63 | 29.00 | 39.00 | 48.00 | 62.00 |
| Residential | 64 | 29.00 | 40.00 | 48.00 | 63.00 |
| Residential | 65 | 30.00 | 40.00 | 49.00 | 63.00 |
| Residential | 66 | 30.00 | 41.00 | 50.00 | 64.00 |
| Residential | 67 | 30.00 | 41.00 | 50.00 | 64.00 |
| Residential | 68 | 31.00 | 42.00 | 51.00 | 65.00 |
| Residential | 69 | 31.00 | 42.00 | 51.00 | 65.00 |
| Residential | 70 | 31.00 | 42.00 | 51.00 | 65.00 |
| Residential | 71 | 32.00 | 43.00 | 52.00 | 66.00 |
| Residential | 72 | 32.00 | 44.00 | 53.00 | 67.00 |
| Residential | 73 | 33.00 | 44.00 | 53.00 | 67.00 |
| Residential | 74 | 33.00 | 44.00 | 54.00 | 68.00 |

**Manufactured**

| *DESCRIPTION* | *AGE* | *GD* | *AV* | *FR* | *PR* |
|---|---|---|---|---|---|
| Manufactured | 0 | 4.00 | 4.00 | 4.00 | 4.00 |
| Manufactured | 1 | 4.00 | 4.00 | 4.00 | 4.00 |
| Manufactured | 2 | 6.00 | 6.00 | 6.00 | 6.00 |
| Manufactured | 3 | 7.00 | 8.00 | 8.00 | 8.00 |
| Manufactured | 4 | 9.00 | 9.00 | 10.00 | 10.00 |
| Manufactured | 5 | 11.00 | 11.00 | 11.00 | 12.00 |
| Manufactured | 6 | 12.00 | 13.00 | 13.00 | 14.00 |
| Manufactured | 7 | 13.00 | 14.00 | 15.00 | 16.00 |
| Manufactured | 8 | 15.00 | 16.00 | 16.00 | 18.00 |
| Manufactured | 9 | 16.00 | 17.00 | 18.00 | 20.00 |
| Manufactured | 10 | 17.00 | 19.00 | 20.00 | 22.00 |
| Manufactured | 11 | 19.00 | 20.00 | 21.00 | 24.00 |
| Manufactured | 12 | 20.00 | 22.00 | 23.00 | 26.00 |
| Manufactured | 13 | 21.00 | 23.00 | 24.00 | 28.00 |
| Manufactured | 14 | 22.00 | 25.00 | 26.00 | 30.00 |
| Manufactured | 15 | 23.00 | 26.00 | 27.00 | 31.00 |
| Manufactured | 16 | 24.00 | 27.00 | 28.00 | 33.00 |
| Manufactured | 17 | 25.00 | 28.00 | 30.00 | 35.00 |
| Manufactured | 18 | 26.00 | 29.00 | 31.00 | 36.00 |
| Manufactured | 19 | 27.00 | 30.00 | 32.00 | 38.00 |
| Manufactured | 20 | 28.00 | 31.00 | 34.00 | 40.00 |
| Manufactured | 21 | 29.00 | 33.00 | 35.00 | 41.00 |
| Manufactured | 22 | 30.00 | 34.00 | 36.00 | 43.00 |
| Manufactured | 23 | 30.00 | 35.00 | 37.00 | 44.00 |
| Manufactured | 24 | 31.00 | 36.00 | 38.00 | 45.00 |
| Manufactured | 25 | 32.00 | 37.00 | 40.00 | 47.00 |
| Manufactured | 26 | 33.00 | 38.00 | 41.00 | 48.00 |
| Manufactured | 27 | 33.00 | 39.00 | 42.00 | 49.00 |
| Manufactured | 28 | 34.00 | 40.00 | 43.00 | 51.00 |
| Manufactured | 29 | 35.00 | 40.00 | 44.00 | 52.00 |
| Manufactured | 30 | 35.00 | 41.00 | 45.00 | 53.00 |
| Manufactured | 31 | 36.00 | 42.00 | 46.00 | 54.00 |
| Manufactured | 32 | 37.00 | 43.00 | 47.00 | 55.00 |
| Manufactured | 33 | 37.00 | 44.00 | 48.00 | 56.00 |
| Manufactured | 34 | 38.00 | 45.00 | 49.00 | 58.00 |
| Manufactured | 35 | 38.00 | 46.00 | 49.00 | 59.00 |
| Manufactured | 36 | 39.00 | 46.00 | 50.00 | 60.00 |
| Manufactured | 37 | 40.00 | 47.00 | 51.00 | 60.00 |
| Manufactured | 38 | 40.00 | 48.00 | 52.00 | 61.00 |

| *DESCRIPTION* | *AGE* | *GD* | *AV* | *FR* | *PR* |
|---|---|---|---|---|---|
| Manufactured | 39 | 41.00 | 49.00 | 53.00 | 62.00 |
| Manufactured | 40 | 41.00 | 49.00 | 54.00 | 63.00 |
| Manufactured | 41 | 42.00 | 50.00 | 54.00 | 64.00 |
| Manufactured | 42 | 42.00 | 51.00 | 55.00 | 65.00 |
| Manufactured | 43 | 43.00 | 51.00 | 56.00 | 66.00 |
| Manufactured | 44 | 43.00 | 52.00 | 57.00 | 66.00 |
| Manufactured | 45 | 43.00 | 53.00 | 57.00 | 67.00 |
| Manufactured | 46 | 44.00 | 53.00 | 58.00 | 68.00 |
| Manufactured | 47 | 44.00 | 54.00 | 59.00 | 69.00 |
| Manufactured | 48 | 45.00 | 54.00 | 59.00 | 69.00 |
| Manufactured | 49 | 45.00 | 55.00 | 60.00 | 70.00 |

**Commercial**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| Commercial | 0 | 0.00 |
| Commercial | 1 | 2.00 |
| Commercial | 2 | 4.00 |
| Commercial | 3 | 6.00 |
| Commercial | 4 | 8.00 |
| Commercial | 5 | 10.00 |
| Commercial | 6 | 12.00 |
| Commercial | 7 | 14.00 |
| Commercial | 8 | 16.00 |
| Commercial | 9 | 18.00 |
| Commercial | 10 | 20.00 |
| Commercial | 11 | 22.00 |
| Commercial | 12 | 24.00 |
| Commercial | 13 | 26.00 |
| Commercial | 14 | 28.00 |
| Commercial | 15 | 30.00 |
| Commercial | 16 | 32.00 |
| Commercial | 17 | 34.00 |
| Commercial | 18 | 36.00 |
| Commercial | 19 | 38.00 |
| Commercial | 20 | 40.00 |
| Commercial | 21 | 42.00 |
| Commercial | 22 | 44.00 |
| Commercial | 23 | 46.00 |
| Commercial | 24 | 48.00 |
| Commercial | 25 | 50.00 |
| Commercial | 26 | 52.00 |
| Commercial | 27 | 54.00 |
| Commercial | 28 | 56.00 |
| Commercial | 29 | 58.00 |
| Commercial | 30 | 60.00 |
| Commercial | 31 | 62.00 |
| Commercial | 32 | 64.00 |
| Commercial | 33 | 66.00 |
| Commercial | 34 | 68.00 |
| Commercial | 35 | 70.00 |
| Commercial | 36 | 70.00 |
| Commercial | 37 | 70.00 |
| Commercial | 38 | 70.00 |

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| Commercial | 39 | 70.00 |
| Commercial | 40 | 70.00 |
| Commercial | 41 | 70.00 |
| Commercial | 42 | 70.00 |
| Commercial | 43 | 70.00 |
| Commercial | 44 | 70.00 |
| Commercial | 45 | 70.00 |
| Commercial | 46 | 70.00 |
| Commercial | 47 | 70.00 |
| Commercial | 48 | 70.00 |
| Commercial | 49 | 70.00 |
| Commercial | 50 | 70.00 |
| Commercial | 51 | 70.00 |
| Commercial | 52 | 70.00 |
| Commercial | 53 | 70.00 |
| Commercial | 54 | 70.00 |
| Commercial | 55 | 70.00 |
| Commercial | 56 | 70.00 |
| Commercial | 57 | 70.00 |
| Commercial | 58 | 70.00 |
| Commercial | 59 | 70.00 |
| Commercial | 60 | 70.00 |
| Commercial | 61 | 70.00 |
| Commercial | 62 | 70.00 |
| Commercial | 63 | 70.00 |
| Commercial | 64 | 70.00 |
| Commercial | 65 | 70.00 |
| Commercial | 66 | 70.00 |
| Commercial | 67 | 70.00 |
| Commercial | 68 | 70.00 |
| Commercial | 69 | 70.00 |
| Commercial | 70 | 70.00 |

**70 – Year**

| *DESCRIPTION* | *AGE* | *AV* | *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|---|---|---|
| 70yr | 0 | 0.00 | 70yr | 39 | 20.00 |
| 70yr | 1 | 0.00 | 70yr | 40 | 21.00 |
| 70yr | 2 | 0.00 | 70yr | 41 | 23.00 |
| 70yr | 3 | 0.00 | 70yr | 42 | 25.00 |
| 70yr | 4 | 1.00 | 70yr | 43 | 26.00 |
| 70yr | 5 | 1.00 | 70yr | 44 | 28.00 |
| 70yr | 6 | 1.00 | 70yr | 45 | 29.00 |
| 70yr | 7 | 1.00 | 70yr | 46 | 31.00 |
| 70yr | 8 | 1.00 | 70yr | 47 | 32.00 |
| 70yr | 9 | 2.00 | 70yr | 48 | 34.00 |
| 70yr | 10 | 2.00 | 70yr | 49 | 36.00 |
| 70yr | 11 | 2.00 | 70yr | 50 | 38.00 |
| 70yr | 12 | 2.00 | 70yr | 51 | 40.00 |
| 70yr | 13 | 2.00 | 70yr | 52 | 42.00 |
| 70yr | 14 | 3.00 | 70yr | 53 | 44.00 |
| 70yr | 15 | 3.00 | 70yr | 54 | 46.00 |
| 70yr | 16 | 3.00 | 70yr | 55 | 48.00 |
| 70yr | 17 | 4.00 | 70yr | 56 | 50.00 |
| 70yr | 18 | 4.00 | 70yr | 57 | 52.00 |
| 70yr | 19 | 4.00 | 70yr | 58 | 54.00 |
| 70yr | 20 | 5.00 | 70yr | 59 | 56.00 |
| 70yr | 21 | 5.00 | 70yr | 60 | 57.00 |
| 70yr | 22 | 6.00 | 70yr | 61 | 59.00 |
| 70yr | 23 | 6.00 | 70yr | 62 | 60.00 |
| 70yr | 24 | 7.00 | 70yr | 63 | 61.00 |
| 70yr | 25 | 7.00 | 70yr | 64 | 63.00 |
| 70yr | 26 | 8.00 | 70yr | 65 | 65.00 |
| 70yr | 27 | 9.00 | 70yr | 66 | 66.00 |
| 70yr | 28 | 9.00 | 70yr | 67 | 67.00 |
| 70yr | 29 | 10.00 | 70yr | 68 | 68.00 |
| 70yr | 30 | 11.00 | 70yr | 69 | 69.00 |
| 70yr | 31 | 12.00 | 70yr | 70 | 70.00 |
| 70yr | 32 | 13.00 | | | |
| 70yr | 33 | 14.00 | | | |
| 70yr | 34 | 15.00 | | | |
| 70yr | 35 | 16.00 | | | |
| 70yr | 36 | 17.00 | | | |
| 70yr | 37 | 18.00 | | | |
| 70yr | 38 | 19.00 | | | |

**60 - Year**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 60yr | 0 | 0.00 |
| 60yr | 1 | 0.00 |
| 60yr | 2 | 1.00 |
| 60yr | 3 | 1.00 |
| 60yr | 4 | 1.00 |
| 60yr | 5 | 1.00 |
| 60yr | 6 | 2.00 |
| 60yr | 7 | 2.00 |
| 60yr | 8 | 2.00 |
| 60yr | 9 | 3.00 |
| 60yr | 10 | 3.00 |
| 60yr | 11 | 4.00 |
| 60yr | 12 | 4.00 |
| 60yr | 13 | 5.00 |
| 60yr | 14 | 5.00 |
| 60yr | 15 | 6.00 |
| 60yr | 16 | 7.00 |
| 60yr | 17 | 7.00 |
| 60yr | 18 | 8.00 |
| 60yr | 19 | 9.00 |
| 60yr | 20 | 9.00 |
| 60yr | 21 | 10.00 |
| 60yr | 22 | 11.00 |
| 60yr | 23 | 12.00 |
| 60yr | 24 | 13.00 |
| 60yr | 25 | 14.00 |
| 60yr | 26 | 15.00 |
| 60yr | 27 | 16.00 |
| 60yr | 28 | 17.00 |
| 60yr | 29 | 18.00 |
| 60yr | 30 | 20.00 |
| 60yr | 31 | 21.00 |
| 60yr | 32 | 22.00 |
| 60yr | 33 | 24.00 |
| 60yr | 34 | 25.00 |
| 60yr | 35 | 27.00 |
| 60yr | 36 | 28.00 |
| 60yr | 37 | 30.00 |
| 60yr | 38 | 32.00 |

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 60yr | 39 | 34.00 |
| 60yr | 40 | 35.00 |
| 60yr | 41 | 37.00 |
| 60yr | 42 | 39.00 |
| 60yr | 43 | 41.00 |
| 60yr | 44 | 43.00 |
| 60yr | 45 | 45.00 |
| 60yr | 46 | 48.00 |
| 60yr | 47 | 51.00 |
| 60yr | 48 | 53.00 |
| 60yr | 49 | 55.00 |
| 60yr | 50 | 58.00 |
| 60yr | 51 | 60.00 |
| 60yr | 52 | 62.00 |
| 60yr | 53 | 63.00 |
| 60yr | 54 | 65.00 |
| 60yr | 55 | 67.00 |
| 60yr | 56 | 69.00 |
| 60yr | 57 | 71.00 |
| 60yr | 58 | 73.00 |
| 60yr | 59 | 75.00 |
| 60yr | 60 | 75.00 |

**55 – Year**

| *DESCRIPTION* | *AGE* | *AV* | | *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|---|---|---|---|
| 55yr | 0 | 0.00 | | 55yr | 40 | 46.00 |
| 55yr | 1 | 0.00 | | 55yr | 41 | 48.00 |
| 55yr | 2 | 1.00 | | 55yr | 42 | 51.00 |
| 55yr | 3 | 1.00 | | 55yr | 43 | 54.00 |
| 55yr | 4 | 1.00 | | 55yr | 44 | 56.00 |
| 55yr | 5 | 2.00 | | 55yr | 45 | 58.00 |
| 55yr | 6 | 2.00 | | 55yr | 46 | 60.00 |
| 55yr | 7 | 3.00 | | 55yr | 47 | 62.00 |
| 55yr | 8 | 3.00 | | 55yr | 48 | 64.00 |
| 55yr | 9 | 4.00 | | 55yr | 49 | 66.00 |
| 55yr | 10 | 4.00 | | 55yr | 50 | 68.00 |
| 55yr | 11 | 5.00 | | 55yr | 51 | 73.00 |
| 55yr | 12 | 6.00 | | 55yr | 52 | 75.00 |
| 55yr | 13 | 6.00 | | 55yr | 53 | 75.00 |
| 55yr | 14 | 7.00 | | 55yr | 54 | 75.00 |
| 55yr | 15 | 8.00 | | 55yr | 55 | 75.00 |
| 55yr | 16 | 9.00 | | | | |
| 55yr | 17 | 10.00 | | | | |
| 55yr | 18 | 11.00 | | | | |
| 55yr | 19 | 12.00 | | | | |
| 55yr | 20 | 13.00 | | | | |
| 55yr | 21 | 14.00 | | | | |
| 55yr | 22 | 15.00 | | | | |
| 55yr | 23 | 16.00 | | | | |
| 55yr | 24 | 17.00 | | | | |
| 55yr | 25 | 19.00 | | | | |
| 55yr | 26 | 20.00 | | | | |
| 55yr | 27 | 21.00 | | | | |
| 55yr | 28 | 23.00 | | | | |
| 55yr | 29 | 24.00 | | | | |
| 55yr | 30 | 26.00 | | | | |
| 55yr | 31 | 28.00 | | | | |
| 55yr | 32 | 30.00 | | | | |
| 55yr | 33 | 32.00 | | | | |
| 55yr | 34 | 34.00 | | | | |
| 55yr | 35 | 36.00 | | | | |
| 55yr | 36 | 38.00 | | | | |
| 55yr | 37 | 40.00 | | | | |
| 55yr | 38 | 42.00 | | | | |
| 55yr | 39 | 44.00 | | | | |

**50 – Year**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 50yr | 0 | 0.00 |
| 50yr | 1 | 0.00 |
| 50yr | 2 | 1.00 |
| 50yr | 3 | 1.00 |
| 50yr | 4 | 2.00 |
| 50yr | 5 | 3.00 |
| 50yr | 6 | 3.00 |
| 50yr | 7 | 4.00 |
| 50yr | 8 | 5.00 |
| 50yr | 9 | 5.00 |
| 50yr | 10 | 6.00 |
| 50yr | 11 | 7.00 |
| 50yr | 12 | 8.00 |
| 50yr | 13 | 9.00 |
| 50yr | 14 | 10.00 |
| 50yr | 15 | 11.00 |
| 50yr | 16 | 12.00 |
| 50yr | 17 | 13.00 |
| 50yr | 18 | 14.00 |
| 50yr | 19 | 16.00 |
| 50yr | 20 | 17.00 |
| 50yr | 21 | 18.00 |
| 50yr | 22 | 20.00 |
| 50yr | 23 | 21.00 |
| 50yr | 24 | 23.00 |
| 50yr | 25 | 25.00 |
| 50yr | 26 | 27.00 |
| 50yr | 27 | 28.00 |
| 50yr | 28 | 30.00 |
| 50yr | 29 | 32.00 |
| 50yr | 30 | 34.00 |
| 50yr | 31 | 36.00 |
| 50yr | 32 | 38.00 |
| 50yr | 33 | 41.00 |
| 50yr | 34 | 43.00 |
| 50yr | 35 | 46.00 |
| 50yr | 36 | 48.00 |
| 50yr | 37 | 51.00 |
| 50yr | 38 | 53.00 |
| 50yr | 39 | 56.00 |
| 50yr | 40 | 59.00 |
| 50yr | 41 | 62.00 |
| 50yr | 42 | 65.00 |
| 50yr | 43 | 68.00 |
| 50yr | 44 | 70.00 |
| 50yr | 45 | 72.00 |
| 50yr | 46 | 74.00 |
| 50yr | 47 | 75.00 |
| 50yr | 48 | 75.00 |
| 50yr | 49 | 75.00 |
| 50yr | 50 | 75.00 |

**45 – Year**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 45yr | 0 | 0.00 |
| 45yr | 1 | 1.00 |
| 45yr | 2 | 1.00 |
| 45yr | 3 | 2.00 |
| 45yr | 4 | 3.00 |
| 45yr | 5 | 4.00 |
| 45yr | 6 | 4.00 |
| 45yr | 7 | 5.00 |
| 45yr | 8 | 6.00 |
| 45yr | 9 | 7.00 |
| 45yr | 10 | 8.00 |
| 45yr | 11 | 9.00 |
| 45yr | 12 | 10.00 |
| 45yr | 13 | 12.00 |
| 45yr | 14 | 13.00 |
| 45yr | 15 | 14.00 |
| 45yr | 16 | 16.00 |
| 45yr | 17 | 18.00 |
| 45yr | 18 | 19.00 |
| 45yr | 19 | 21.00 |
| 45yr | 20 | 23.00 |
| 45yr | 21 | 25.00 |
| 45yr | 22 | 27.00 |
| 45yr | 23 | 29.00 |
| 45yr | 24 | 31.00 |
| 45yr | 25 | 33.00 |
| 45yr | 26 | 35.00 |
| 45yr | 27 | 37.00 |
| 45yr | 28 | 40.00 |
| 45yr | 29 | 42.00 |
| 45yr | 30 | 45.00 |
| 45yr | 31 | 48.00 |
| 45yr | 32 | 50.00 |
| 45yr | 33 | 53.00 |
| 45yr | 34 | 55.00 |
| 45yr | 35 | 58.00 |
| 45yr | 36 | 61.00 |
| 45yr | 37 | 64.00 |
| 45yr | 38 | 67.00 |

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 45yr | 39 | 70.00 |
| 45yr | 40 | 72.00 |
| 45yr | 41 | 75.00 |
| 45yr | 42 | 75.00 |
| 45yr | 43 | 75.00 |
| 45yr | 44 | 75.00 |
| 45yr | 45 | 75.00 |

**40 – Year**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 40yr | 0 | 0.00 |
| 40yr | 1 | 1.00 |
| 40yr | 2 | 2.00 |
| 40yr | 3 | 3.00 |
| 40yr | 4 | 4.00 |
| 40yr | 5 | 5.00 |
| 40yr | 6 | 6.00 |
| 40yr | 7 | 7.00 |
| 40yr | 8 | 8.00 |
| 40yr | 9 | 10.00 |
| 40yr | 10 | 11.00 |
| 40yr | 11 | 13.00 |
| 40yr | 12 | 14.00 |
| 40yr | 13 | 16.00 |
| 40yr | 14 | 18.00 |
| 40yr | 15 | 20.00 |
| 40yr | 16 | 22.00 |
| 40yr | 17 | 24.00 |
| 40yr | 18 | 26.00 |
| 40yr | 19 | 28.00 |
| 40yr | 20 | 30.00 |
| 40yr | 21 | 32.00 |
| 40yr | 22 | 35.00 |
| 40yr | 23 | 37.00 |
| 40yr | 24 | 40.00 |
| 40yr | 25 | 43.00 |
| 40yr | 26 | 46.00 |
| 40yr | 27 | 49.00 |
| 40yr | 28 | 52.00 |
| 40yr | 29 | 54.00 |
| 40yr | 30 | 57.00 |
| 40yr | 31 | 60.00 |
| 40yr | 32 | 62.00 |
| 40yr | 33 | 65.00 |
| 40yr | 34 | 68.00 |
| 40yr | 35 | 71.00 |
| 40yr | 36 | 73.00 |
| 40yr | 37 | 75.00 |
| 40yr | 38 | 75.00 |
| 40yr | 39 | 75.00 |
| 40yr | 40 | 75.00 |

**35 – Year**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 35yr | 0 | 0.00 |
| 35yr | 1 | 1.00 |
| 35yr | 2 | 2.00 |
| 35yr | 3 | 4.00 |
| 35yr | 4 | 5.00 |
| 35yr | 5 | 6.00 |
| 35yr | 6 | 8.00 |
| 35yr | 7 | 10.00 |
| 35yr | 8 | 11.00 |
| 35yr | 9 | 13.00 |
| 35yr | 10 | 15.00 |
| 35yr | 11 | 17.00 |
| 35yr | 12 | 19.00 |
| 35yr | 13 | 22.00 |
| 35yr | 14 | 24.00 |
| 35yr | 15 | 26.00 |
| 35yr | 16 | 28.00 |
| 35yr | 17 | 31.00 |
| 35yr | 18 | 34.00 |
| 35yr | 19 | 36.00 |
| 35yr | 20 | 39.00 |
| 35yr | 21 | 42.00 |
| 35yr | 22 | 45.00 |
| 35yr | 23 | 48.00 |
| 35yr | 24 | 52.00 |
| 35yr | 25 | 55.00 |
| 35yr | 26 | 58.00 |
| 35yr | 27 | 61.00 |
| 35yr | 28 | 64.00 |
| 35yr | 29 | 68.00 |
| 35yr | 30 | 72.00 |
| 35yr | 31 | 73.00 |
| 35yr | 32 | 75.00 |
| 35yr | 33 | 75.00 |
| 35yr | 34 | 75.00 |
| 35yr | 35 | 75.00 |

**30 – Year**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 30yr | 0 | 0.00 |
| 30yr | 1 | 2.00 |
| 30yr | 2 | 3.00 |
| 30yr | 3 | 5.00 |
| 30yr | 4 | 7.00 |
| 30yr | 5 | 9.00 |
| 30yr | 6 | 11.00 |
| 30yr | 7 | 14.00 |
| 30yr | 8 | 16.00 |
| 30yr | 9 | 18.00 |
| 30yr | 10 | 21.00 |
| 30yr | 11 | 24.00 |
| 30yr | 12 | 26.00 |
| 30yr | 13 | 29.00 |
| 30yr | 14 | 32.00 |
| 30yr | 15 | 35.00 |
| 30yr | 16 | 39.00 |
| 30yr | 17 | 42.00 |
| 30yr | 18 | 46.00 |
| 30yr | 19 | 49.00 |
| 30yr | 20 | 53.00 |
| 30yr | 21 | 57.00 |
| 30yr | 22 | 60.00 |
| 30yr | 23 | 63.00 |
| 30yr | 24 | 66.00 |
| 30yr | 25 | 69.00 |
| 30yr | 26 | 72.00 |
| 30yr | 27 | 75.00 |
| 30yr | 28 | 75.00 |
| 30yr | 29 | 75.00 |
| 30yr | 30 | 75.00 |

**25 – Year**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 25yr | 0 | 0.00 |
| 25yr | 1 | 2.00 |
| 25yr | 2 | 5.00 |
| 25yr | 3 | 7.00 |
| 25yr | 4 | 10.00 |
| 25yr | 5 | 13.00 |
| 25yr | 6 | 16.00 |
| 25yr | 7 | 19.00 |
| 25yr | 8 | 22.00 |
| 25yr | 9 | 25.00 |
| 25yr | 10 | 29.00 |
| 25yr | 11 | 32.00 |
| 25yr | 12 | 36.00 |
| 25yr | 13 | 40.00 |
| 25yr | 14 | 44.00 |
| 25yr | 15 | 48.00 |
| 25yr | 16 | 52.00 |
| 25yr | 17 | 56.00 |
| 25yr | 18 | 60.00 |
| 25yr | 19 | 64.00 |
| 25yr | 20 | 68.00 |
| 25yr | 21 | 71.00 |
| 25yr | 22 | 73.00 |
| 25yr | 23 | 75.00 |
| 25yr | 24 | 75.00 |
| 25yr | 25 | 75.00 |

**20 – Year**

| *DESCRIPTION* | *AGE* | *AV* |
|---|---|---|
| 20yr | 0 | 0.00 |
| 20yr | 1 | 3.00 |
| 20yr | 2 | 7.00 |
| 20yr | 3 | 10.00 |
| 20yr | 4 | 14.00 |
| 20yr | 5 | 18.00 |
| 20yr | 6 | 22.00 |
| 20yr | 7 | 26.00 |
| 20yr | 8 | 30.00 |
| 20yr | 9 | 35.00 |
| 20yr | 10 | 40.00 |
| 20yr | 11 | 45.00 |
| 20yr | 12 | 50.00 |
| 20yr | 13 | 55.00 |
| 20yr | 14 | 60.00 |
| 20yr | 15 | 65.00 |
| 20yr | 16 | 69.00 |
| 20yr | 17 | 73.00 |
| 20yr | 18 | 75.00 |
| 20yr | 19 | 75.00 |
| 20yr | 20 | 75.00 |

**Land Size Adjustment Table (SA 9)**

| *Units* | *Factor* | *Units* | *Factor* | *Units* | *Factor* | *Units* | *Factor* | *Units* | *Factor* | *Units* | *Factor* | *Units* | *Factor* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.0100 | 0.2000 | 0.3800 | 1.4700 | 0.7200 | 1.2300 | 1.7500 | 0.9300 | 4.8000 | 0.6156 | 8.5000 | 0.4576 | 15.0000 | 0.3600 |
| 0.0500 | 0.2000 | 0.3900 | 1.4900 | 0.7300 | 1.2200 | 1.8000 | 0.9250 | 4.9000 | 0.6087 | 8.6000 | 0.4555 | 17.0000 | 0.3570 |
| 0.0600 | 0.2500 | 0.4000 | 1.5000 | 0.7400 | 1.2100 | 1.9000 | 0.9200 | 5.0000 | 0.6020 | 8.7000 | 0.4534 | 18.0000 | 0.3550 |
| 0.0700 | 0.2900 | 0.4100 | 1.5100 | 0.7500 | 1.2000 | 1.9500 | 0.9150 | 5.1000 | 0.5956 | 8.8000 | 0.4514 | 19.0000 | 0.3530 |
| 0.0800 | 0.3700 | 0.4200 | 1.5200 | 0.7600 | 1.1900 | 2.0000 | 0.9100 | 5.2000 | 0.5894 | 8.9000 | 0.4494 | 20.0000 | 0.3500 |
| 0.0900 | 0.4400 | 0.4300 | 1.5300 | 0.7700 | 1.1800 | 2.1000 | 0.9000 | 5.4000 | 0.5727 | 9.0000 | 0.4475 | 25.0000 | 0.3450 |
| 0.1000 | 0.5000 | 0.4400 | 1.5400 | 0.7800 | 1.1700 | 2.1500 | 0.8950 | 5.6000 | 0.5571 | 9.1000 | 0.4456 | 30.0000 | 0.3400 |
| 0.1100 | 0.5500 | 0.4500 | 1.5500 | 0.7900 | 1.1600 | 2.2000 | 0.8900 | 5.7000 | 0.5522 | 9.2000 | 0.4438 | 35.0000 | 0.3350 |
| 0.1200 | 0.5800 | 0.4600 | 1.5400 | 0.8000 | 1.1500 | 2.3000 | 0.8800 | 5.9000 | 0.5381 | 9.3000 | 0.4419 | 40.0000 | 0.3300 |
| 0.1300 | 0.6200 | 0.4700 | 1.5300 | 0.8100 | 1.1400 | 2.4000 | 0.8700 | 6.0000 | 0.5338 | 9.4000 | 0.4402 | 43.0000 | 0.3250 |
| 0.1400 | 0.6400 | 0.4800 | 1.5200 | 0.8200 | 1.1300 | 2.5000 | 0.8670 | 6.1000 | 0.5295 | 9.5000 | 0.4384 | 45.0000 | 0.3200 |
| 0.1500 | 0.6700 | 0.4900 | 1.5100 | 0.8400 | 1.1200 | 2.5500 | 0.8650 | 6.2000 | 0.5240 | 9.6000 | 0.4367 | 47.0000 | 0.3150 |
| 0.1600 | 0.6900 | 0.5000 | 1.5000 | 0.8600 | 1.1100 | 2.6000 | 0.8600 | 6.3000 | 0.5214 | 9.7000 | 0.4351 | 50.0000 | 0.3100 |
| 0.1700 | 0.7100 | 0.5100 | 1.4900 | 0.8700 | 1.1000 | 2.7000 | 0.8500 | 6.4000 | 0.5176 | 9.8000 | 0.4334 | 55.0000 | 0.3050 |
| 0.1800 | 0.7200 | 0.5200 | 1.4800 | 0.8800 | 1.0900 | 2.8000 | 0.8400 | 6.5000 | 0.5138 | 9.9000 | 0.4318 | 60.0000 | 0.3000 |
| 0.1900 | 0.7400 | 0.5300 | 1.4700 | 0.9000 | 1.0800 | 2.9000 | 0.8300 | 6.6000 | 0.5102 | 10.0000 | 0.4300 | 65.0000 | 0.2950 |
| 0.2000 | 0.7500 | 0.5400 | 1.4600 | 0.9100 | 1.0700 | 3.0000 | 0.8200 | 6.7000 | 0.5067 | 10.1000 | 0.4270 | 70.0000 | 0.2900 |
| 0.2100 | 0.8100 | 0.5500 | 1.4500 | 0.9200 | 1.0600 | 3.1000 | 0.8024 | 6.8000 | 0.5033 | 10.2000 | 0.4250 | 80.0000 | 0.2900 |
| 0.2200 | 0.9100 | 0.5600 | 1.4300 | 0.9300 | 1.0500 | 3.2000 | 0.7859 | 6.9000 | 0.5000 | 10.3000 | 0.4200 | 85.0000 | 0.2850 |
| 0.2300 | 1.0000 | 0.5700 | 1.4200 | 0.9400 | 1.0400 | 3.3000 | 0.7705 | 7.0000 | 0.4968 | 10.4000 | 0.4170 | 90+ | 0.2800 |
| 0.2400 | 1.0800 | 0.5800 | 1.4000 | 0.9600 | 1.0300 | 3.4000 | 0.7559 | 7.1000 | 0.4937 | 10.5000 | 0.4150 | | |
| 0.2500 | 1.1600 | 0.5900 | 1.3900 | 0.9700 | 1.0200 | 3.5000 | 0.7421 | 7.2000 | 0.4906 | 10.6000 | 0.4100 | | |
| 0.2600 | 1.2300 | 0.6000 | 1.3700 | 0.9900 | 1.0100 | 3.6000 | 0.7292 | 7.3000 | 0.4877 | 10.7000 | 0.4070 | | |
| 0.2700 | 1.2600 | 0.6100 | 1.3600 | 1.0000 | 1.0000 | 3.7000 | 0.7169 | 7.4000 | 0.4848 | 10.8000 | 0.4050 | | |
| 0.2800 | 1.2900 | 0.6200 | 1.3400 | 1.0500 | 0.9900 | 3.8000 | 0.7053 | 7.5000 | 0.4820 | 10.9000 | 0.4020 | | |
| 0.2900 | 1.3100 | 0.6300 | 1.3300 | 1.1500 | 0.9850 | 3.9000 | 0.6942 | 7.6000 | 0.4793 | 11.0000 | 0.4000 | | |
| 0.3000 | 1.3300 | 0.6400 | 1.3100 | 1.2000 | 0.9800 | 4.0000 | 0.6838 | 7.7000 | 0.4766 | 11.3000 | 0.3950 | | |
| 0.3100 | 1.3500 | 0.6500 | 1.3000 | 1.3000 | 0.9700 | 4.1000 | 0.6738 | 7.8000 | 0.4740 | 11.6000 | 0.3900 | | |
| 0.3200 | 1.3700 | 0.6600 | 1.2900 | 1.3500 | 0.9650 | 4.2000 | 0.6643 | 7.9000 | 0.4715 | 11.9000 | 0.3850 | | |
| 0.3300 | 1.3900 | 0.6700 | 1.2800 | 1.4000 | 0.9600 | 4.3000 | 0.6552 | 8.0000 | 0.4691 | 12.0000 | 0.3800 | | |
| 0.3400 | 1.4100 | 0.6800 | 1.2700 | 1.5000 | 0.9500 | 4.4000 | 0.6466 | 8.1000 | 0.4667 | 12.5000 | 0.3750 | | |
| 0.3500 | 1.4300 | 0.6900 | 1.2600 | 1.5500 | 0.9450 | 4.5000 | 0.6383 | 8.2000 | 0.4643 | 13.0000 | 0.3700 | | |
| 0.3600 | 1.4400 | 0.7000 | 1.2500 | 1.6000 | 0.9400 | 4.6000 | 0.6304 | 8.3000 | 0.4620 | 14.0000 | 0.3700 | | |
| 0.3700 | 1.4600 | 0.7100 | 1.2400 | 1.7000 | 0.9350 | 4.7000 | 0.6229 | 8.4000 | 0.4598 | 14.5000 | 0.3650 | | |

# SPECIAL FEATURES/YARD ITEMS (SFYI)

**SPECIAL FEATURES / YARD ITEMS (SFYI)**

This section is used to indicate any Special Features about the building or any Yard Items located on the parcel. (Note: another commonly used term for Yard Items is "Outbuildings"). This section generally contains the quantity and size of a Special Feature or Yard Item using an SFYI code, a quality code and the Condition of the item, the Year the item or feature was built or acquired, and an automatic size-adjusted unit price or user-optional override price. The depreciation source may be taken from a defined table, manually entered, or automatically tied to the building depreciation.

Additional factors that can affect the valuation are the Land Use Code, the Jurisdictional Factor, or the Neighborhood Code.

Within the AssessPro system, the appraiser may indicate whether an item is attached to the main building, detached, or attached to an adjacent item.

It is better to spend time accurately determining the data elements called for in the system. On the other hand, such items as boat houses, docks, pools, garages and other items of major value must be recorded to properly value the parcel. The appraiser has a clear idea of what is to be recorded in Orange County and what is not before beginning with this item.

**ALL FIELDS MUST BE ENTERED**

**CODE:** The appraiser inputs the appropriate SFYI code in this field.

**QUANTITY**: The appraiser inputs the appropriate number of a particular Special Feature or Yard Item.

**UNITS**: The total units by which the extra feature is valued must be entered here.

**QUALITY**: This field allows the appraiser to identify features or items that are either above or below the quality associated with the rest of the structure.

**CONDITION**: This field allows the appraiser to identify Special Features or Yard Items that are either above or below the condition associated with the rest of the structure.

**YEAR:** This field identifies the year built for the particular Special Feature or Yard Item.

## SFYI Codes and Base Prices

| Code | Description | Full Description | Size | Rate | Curve Percent | Dep Table | Min Factor | Max Factor |
|---|---|---|---|---|---|---|---|---|
| AA | Attached Add | Attached Addition | 1 | 78 | 1 | R - Residential | 1 | 1 |
| AG | Att Garage | Attached Garage | 400 | 31 | 55 | R - Residential | 0.1 | 5 |
| ATTU | UnFin Attic | UnFinished Attic | 750 | 7 | 10 | R - Residential | 0.01 | 5 |
| BG | Blt-in Gar | Built-in Garage | 400 | 31 | 55 | 1 - Office | 0.1 | 5 |
| C502 | Util Bldg | Utility Building | 50 | 33 | 25 | 1 - Office | 0.1 | 5 |
| C503 | Patio | Patio | 100 | 9 | 25 | 1 - Office | 0.1 | 5 |
| C504 | Open Porch | Open Porch | 200 | 39 | 25 | 1 - Office | 0.1 | 5 |
| C505 | Enc Porch | Enclosed Porch | 200 | 41 | 25 | 1 - Office | 0.1 | 5 |
| C506 | Scrn Porch | Screen Porch | 200 | 40 | 25 | 1 - Office | 0.1 | 5 |
| C507 | Bank Canopy | Bank Canopy | 900 | 34 | 25 | 1 - Office | 0.1 | 5 |
| C508 | Canopy | Canopy | 400 | 15 | 25 | 1 - Office | 0.1 | 5 |
| C509 | Deck | Deck | 200 | 23 | 25 | 1 - Office | 0.1 | 5 |
| C510 | Truck Well | Truck Well | 450 | 16 | 25 | 1 - Office | 0.1 | 5 |
| C511 | Atrium | Atrium | 800 | 108 | 25 | 1 - Office | 0.1 | 5 |
| C512 | Dock | Loading Dock | 800 | 27 | 25 | 1 - Office | 0.1 | 5 |
| C513 | Cov Ld | Covered Loading Dock | 800 | 34 | 25 | 1 - Office | 0.1 | 5 |
| C514 | Att Garage | Attached Garage | 400 | 32 | 25 | 1 - Office | 0.1 | 5 |
| C515 | Warehouse | Warehouse | 0 | 39 | 0 | ND - No Depreciat | 1 | 1 |
| CA | Carport | Carport | 400 | 23 | 43 | R - Residential | 0.1 | 5 |
| CLS | Com Lump Sum | Commercial Lump Sum | 1 | 0 | 1 | 1 - Office | 1 | 1 |
| CO | Commercial | Commercial Structure | 1 | 55 | 1 | 1 - Office | 1 | 1 |
| DK | Deck | Deck | 200 | 23 | 25 | R - Residential | 0.1 | 5 |
| EP | Encl Por | Enclosed Porch | 200 | 34 | 25 | R - Residential | 0.1 | 5 |
| FM | Farm Bldg | Farm Building (barns,stables,etc) | 1 | 12 | 1 | R - Residential | 1 | 1 |
| GA | Det Garage | Detached Garage | 400 | 39 | 55 | R - Residential | 0.1 | 5 |
| GB | Basmnt Gar | Garage in Basement | 1 | 23 | 1 | R - Residential | 1 | 1 |
| GP | Glazed Porch | Glazed (enclosed) Porch | 200 | 34 | 25 | R - Residential | 0.1 | 5 |
| GR | Greenhouse | Greenhouse | 1 | 12 | 1 | R - Residential | 1 | 1 |
| LG | LQ Ov Garage | Living Quarter over Garage | 400 | 87 | 51 | R - Residential | 0.1 | 5 |
| LQ | LQ Extension | Living Quarter Extensions | 1 | 56 | 1 | R - Residential | 1 | 1 |
| M999 | Misc. | Miscellaneous Item | 1 | 1 | 1 | R - Residential | 1 | 1 |
| MA | Main | Main | 1 | 89 | 1 | R - Residential | 1 | 1 |
| MH | Mobile Home | Mobile Home | 1 | 0 | 1 | MH - MH | 0.8 | 1.5 |
| MISC | Misc OBYI | Misc OBYI | 1 | 0 | 1 | R - Residential | 1 | 1 |
| NP | No Plumbing | No Plumbing | 1 | -4683 | 1 | R - Residential | 1 | 1 |
| OP | Open Porch | Open Porch | 200 | 39 | 25 | R - Residential | 0.1 | 5 |
| PA | AttPatio | Attached Patio | 200 | 9 | 20 | R - Residential | 0.1 | 5 |
| PR | Patio w/Roof | Patio with Roof (Canopy) | 200 | 15 | 23 | R - Residential | 0.1 | 5 |
| RO | Res Ofc bldg | Residential Office accessory building | 1 | 0 | 1 | R - Residential | 1 | 1 |
| RS | Res Shop bld | Residential workShop accesssory building | 1 | 0 | 1 | R - Residential | 1 | 1 |
| RST | Res Stor bld | Residential Storage building | 50 | 30.58 | 33 | R - Residential | 0.1 | 5 |
| SA | Spec Addtn | Special Addition | 50 | 30 | 33 | R - Residential | 0.1 | 5 |
| SP | Scrn Porch | Screened Porch | 200 | 41 | 25 | R - Residential | 0.1 | 5 |
| SW | Swim Pool | Swimming Pool | 1 | 22 | 1 | R - Residential | 1 | 1 |
| TC | Tennis Ct | Tennis Court | 1 | 17 | 1 | R - Residential | 1 | 1 |
| UNKN | Unknown | Unknown | 1 | 0 | 1 | R - Residential | 1 | 1 |
| UT | Util Bldg | Utility Building | 50 | 28 | 33 | R - Residential | 0.1 | 5 |
| Y010 | GARAGE | GARAGE | 400 | 39 | 55 | R - Residential | 0.1 | 5 |
| Y020 | CARPORT | CARPORT | 1 | 23 | 1 | R - Residential | 1 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Y030 | STG BLDG | ENCLOSED STORAGE BUILDING OR WORKSHOP | 50 | 30 | 33 | R - Residential | 0.1 | 5 |
| Y040 | SHED | OPEN STORAGE SHED | 1 | 12 | 1 | R - Residential | 1 | 1 |
| Y050 | LEAN TO | LEAN TO STORAGE SHED | 1 | 8 | 1 | R - Residential | 1 | 1 |
| Y060 | PORCH | DETACHED COVERED PORCH OR GAZEBO | 200 | 39 | 25 | R - Residential | 0.1 | 5 |
| Y070 | DECK | DETACHED DECK | 200 | 23 | 25 | R - Residential | 0.1 | 5 |
| Y080 | PATIO | DETACHED PATIO OR CONCRETE APRON/SLAB | 200 | 9 | 1 | R - Residential | 0.1 | 5 |
| Y090 | DWELLING | OLD DWELLING-MINIMAL VALUE | 1 | 200 | 1 | R - Residential | 1 | 1 |
| Y095 | MH | MOBILE HOME | 1 | 0 | 1 | R - Residential | 0 | 0 |
| Y100 | ADDN-MH | MOBILE HOME ADDITION | 200 | 40 | 36 | R - Residential | 0.88 | 1.24 |
| Y101 | CAN-MH | MOBILE HOME CANOPY | 144 | 8 | 25 | R - Residential | 0.1 | 5 |
| Y102 | CPT-MH | MOBILE HOME CARPORT | 400 | 13 | 25 | R - Residential | 0.1 | 5 |
| Y103 | DK-MH | MOBILE HOME DECK | 100 | 11 | 25 | R - Residential | 0.1 | 5 |
| Y104 | EP-MH | MOBILE HOME ENC PORCH | 200 | 22 | 25 | R - Residential | 0.1 | 5 |
| Y105 | OP-MH | MOBILE HOME OPEN PORCH | 200 | 20 | 25 | R - Residential | 0.1 | 5 |
| Y106 | PT-MH | MOBILE HOME PATIO | 200 | 6 | 25 | R - Residential | 0.1 | 5 |
| Y107 | SP-MH | MOBILE HOME SCREEN PORCH | 200 | 21 | 25 | R - Residential | 0.1 | 5 |
| Y108 | UT-MH | MOBILE HOME UT | 144 | 20 | 25 | R - Residential | 0.1 | 5 |
| Y109 | ST-MH | MOBILE HOME STOOP | 100 | 6 | 25 | R - Residential | 0.1 | 5 |
| Y110 | OFFICE | DETACHED OFFICE OR STUDIO | 400 | 48 | 55 | R - Residential | 0.1 | 5 |
| Y120 | RES ELEVATOR | RESIDENTIAL ELEVATOR | 1 | 20000 | 1 | R - Residential | 1 | 1 |
| Y125 | Res Ele Stop | Residential Elevator Stop | 0 | 3500 | 0 | ND - No Depreciat | 1 | 1 |
| Y200 | STABLE | STABLE | 1 | 12 | 1 | R - Residential | 1 | 1 |
| Y210 | BARN | BARN | 1 | 12 | 1 | R - Residential | 1 | 1 |
| Y220 | GRAIN | GRAIN BIN | 1 | 12 | 1 | R - Residential | 1 | 1 |
| Y230 | POULT | POULTRY HOUSE OR ANIMAL PRODUCTION BLDG | 1 | 17 | 1 | R - Residential | 1 | 1 |
| Y240 | SILO | FARM SILO (DIAMETER X HEIGHT) | 1 | 37000 | 1 | R - Residential | 1 | 1 |
| Y300 | TENNIS | TENNIS COURT | 1 | 17 | 1 | R - Residential | 1 | 1 |
| Y310 | BALL CRT | BALL COURT | 1 | 9 | 1 | R - Residential | 1 | 1 |
| Y320 | RES POOL | RESIDENTIAL SWIMMING POOL/AVERAGE QUALITY | 1 | 22 | 1 | R - Residential | 1 | 1 |
| Y325 | RES POOL ENC | POOL ENCLOSURE | 1500 | 34 | 55 | R - Residential | 0.1 | 5 |
| Y330 | POOL/CUST | RESIDENTIAL SWIMMING POOL/CUSTOM QUALITY | 1 | 34 | 1 | R - Residential | 1 | 1 |
| Y400 | MH SPACE-FR | MANUFACTURED HOME SPACE FAIR | 1 | 9000 | 1 | ND - No Depreciat | 1 | 1 |
| Y401 | MH SPACE-AV | MANFACTURED HOME SPACE AVERAGE | 0 | 12000 | 1 | ND - No Depreciat | 1 | 1 |
| Y402 | MH SPACE-GD | MANFACTURED HOME SPACE GOOD | 1 | 18000 | 1 | ND - No Depreciat | 1 | 1 |
| Y403 | MH SPACE-EX | MANFACTURED HOME SPACE EXCELLENT | 1 | 25000 | 1 | ND - No Depreciat | 1 | 1 |
| Y410 | RV SPACE | RECREATIONAL VEHICLE SPACE | 1 | 3000 | 1 | ND - No Depreciat | 1 | 1 |
| Y420 | CEMETERY | UNSOLD CEMETERY LOT | 1 | 150 | 1 | ND - No Depreciat | 1 | 1 |
| Y425 | CRYPTS | UNSOLD CRYPTS | 1 | 3000 | 0 | ND - No Depreciat | 1 | 1 |
| Y430 | NICHES | UNSOLD NICHES | 1 | 400 | 0 | ND - No Depreciat | 1 | 1 |
| Y500 | PAVING | ASPHALT PAVING | 1 | 3 | 25 | C - Commercial | 0.1 | 5 |
| Y505 | CON PAVING | CONCRETE PAVING | 1 | 5 | 25 | C - Commercial | 0.1 | 5 |
| Y510 | FENCE | COMMERCIAL WOOD OR METAL FENCING | 1 | 17 | 1 | C - Commercial | 1 | 1 |
| Y515 | GAS CAN | GAS CANOPY | 1 | 32 | 0 | C - Commercial | 1 | 1 |
| Y520 | RAIL SIDING | RAIL SIDING | 1 | 75 | 1 | C - Commercial | 1 | 1 |
| Y530 | CANOPY | COMMERCIAL CANOPY | 1 | 15 | 1 | C - Commercial | 1 | 1 |
| Y540 | DOCK | LOADING DOCK | 1 | 28 | 1 | C - Commercial | 1 | 1 |
| Y550 | RAIL SIDE | RAIL SIDE PER LINEAR FOOT | 1 | 75 | 1 | C - Commercial | 1 | 1 |
| Y560 | TANK | WATER OR FUEL STORAGE TANK | 1 | 60000 | 1 | 1 - Office | 1 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Y570 | HANGAR | SMALL AIRCRAFT HANGAR | 1 | 45 | 1 | 1 - Office | 1 | 1 |
| Y580 | GUARD HSE | GUARD HOUSE | 1 | 86 | 1 | 1 - Office | 1 | 1 |
| Y600 | GARAGE COM | COMMERCIAL GARAGE | 1200 | 30 | 55 | C - Commercial | 0.1 | 4 |
| Y605 | OUTDOOR KIT | Outdoor Kitchen | 1 | 4200 | 1 | R - Residential | 1 | 1 |
| Y610 | OUTDOOR FP | OUTDOOR FIREPLACE | 1 | 3000 | 0 | R - Residential | 1 | 1 |
| Y700 | POOL/COM | COMMERCIAL SWIMMING POOL | 1200 | 54 | 25 | C - Commercial | 0.5 | 2.5 |
| Y705 | GC CLASS 1 | GOLF COURSE CLASS I | 18 | 86500 | 1 | C - Commercial | 1 | 1 |
| Y710 | GC CLASS 2 | GOLF COURSE CLASS II | 18 | 123500 | 1 | C - Commercial | 1 | 1 |
| Y715 | GC CLASS 3 | GOLF COURSE CLASS III | 18 | 178500 | 1 | C - Commercial | 1 | 1 |
| Y716 | GC CLASS 4 | GOLF COURSE CLASS IV | 18 | 270000 | 1 | C - Commercial | 1 | 1 |
| Y720 | BATH HSE | BATH HOUSE OR RESTROOM FACILITY | 1 | 40 | 1 | C - Commercial | 1 | 1 |
| Y730 | SHELTER | PICNIC OR RECREATIONAL SHELTER | 1 | 8 | 55 | R - Residential | 0.1 | 5 |
| Y735 | MATERIAL SHL | MATERIAL SHELTER | 1 | 9 | 1 | C - Commercial | 1 | 1 |
| Y740 | MATERIAL SHD | MATERIAL SHED | 1 | 12 | 1 | C - Commercial | 1 | 1 |
| Y800 | OFF MEZZ | OFFICE MEZZANINE | 1 | 61 | 0 | ND - No Depreciat | 1 | 1 |
| Y805 | STG MEZZ | STORAGE MEZZANINE | 0 | 25 | 0 | ND - No Depreciat | 1 | 1 |
| Y810 | HOTEL MEZZ | HOTEL MEZZANINE | 0 | 65 | 0 | ND - No Depreciat | 1 | 1 |
| Y815 | DSP MEZZ | DISPLAY MEZZANINE | 0 | 38 | 0 | ND - No Depreciat | 1 | 1 |
| Y900 | PASS ELEV | PASSENGER ELEVATOR | 0 | 47500 | 0 | ND - No Depreciat | 1 | 1 |
| Y905 | ELEV STOP | PASS ELEV STOPS | 0 | 7500 | 0 | ND - No Depreciat | 1 | 1 |

**SFYI Quality Codes**

| *Code* | *Description* | *Rate* |
|---|---|---|
| AA95 | Grade AA+95 | 6.95 |
| AA90 | Grade AA+90 | 6.65 |
| AA85 | Grade AA+85 | 6.35 |
| AA80 | Grade AA+80 | 6.05 |
| AA75 | Grade AA+75 | 5.75 |
| AA70 | Grade AA+70 | 5.45 |
| AA65 | Grade AA+65 | 5.15 |
| AA60 | Grade AA+60 | 4.85 |
| AA55 | Grade AA+55 | 4.55 |
| AA50 | Grade AA+50 | 4.25 |
| AA45 | Grade AA+45 | 3.95 |
| AA40 | Grade AA+40 | 3.80 |
| AA35 | Grade AA+35 | 3.65 |
| AA30 | Grade AA+30 | 3.50 |
| AA25 | Grade AA+25 | 3.35 |
| AA20 | Grade AA+20 | 3.20 |
| AA15 | Grade AA+15 | 3.05 |
| AA10 | Grade AA+10 | 2.90 |
| AA05 | Grade AA+05 | 2.75 |
| AA | Grade AA | 2.60 |
| A+95 | Grade A+95 | 2.55 |
| A+90 | Grade A+90 | 2.50 |
| A+85 | Grade A+85 | 2.45 |
| A+80 | Grade A+80 | 2.40 |
| A+75 | Grade A+75 | 2.35 |
| A+70 | Grade A+70 | 2.30 |
| A+65 | Grade A+65 | 2.25 |
| A+60 | Grade A+60 | 2.20 |
| A+55 | Grade A+55 | 2.15 |
| A+50 | Grade A+50 | 2.10 |
| A+45 | Grade A+45 | 2.05 |
| A+40 | Grade A+40 | 2.00 |
| A+35 | Grade A+35 | 1.95 |
| A+30 | Grade A+30 | 1.90 |

| *Code* | *Description* | *Rate* |
|---|---|---|
| A+25 | Grade A+25 | 1.85 |
| A+20 | Grade A+20 | 1.80 |
| A+15 | Grade A+15 | 1.75 |
| A+10 | Grade A+10 | 1.70 |
| A+05 | Grade A+05 | 1.65 |
| A | Grade A | 1.60 |
| A-05 | Grade A-05 | 1.55 |
| A-10 | Grade A-10 | 1.50 |
| A-15 | Grade A-15 | 1.45 |
| B+10 | Grade B+10 | 1.40 |
| B+05 | Grade B+05 | 1.35 |
| B | Grade B | 1.30 |
| B-05 | Grade B-05 | 1.25 |
| B-10 | Grade B-10 | 1.20 |
| B-15 | Grade B-15 | 1.15 |
| C+10 | Grade C+10 | 1.10 |
| C+05 | Grade C+05 | 1.05 |
| S11 | S11 | 1.01 |
| C | Grade C | 1.00 |
| B11 | B11 | 1.00 |
| B18 | B18 | 1.00 |
| A11 | A11 | 0.99 |
| S12 | S12 | 0.99 |
| S18 | S18 | 0.99 |
| A18 | A18 | 0.98 |
| B12 | B12 | 0.98 |
| B14 | B14 | 0.98 |
| B15 | B15 | 0.98 |
| B17 | B17 | 0.98 |
| S13 | S13 | 0.98 |
| S15 | S15 | 0.98 |
| S16 | S16 | 0.98 |
| C17 | C17 | 0.98 |
| A12 | A12 | 0.97 |

| *Code* | *Description* | *Rate* |
|---|---|---|
| A13 | A13 | 0.97 |
| A17 | A17 | 0.97 |
| B16 | B16 | 0.97 |
| C11 | C11 | 0.97 |
| C13 | C13 | 0.97 |
| C16 | C16 | 0.97 |
| D11 | D11 | 0.97 |
| A15 | A15 | 0.96 |
| A16 | A16 | 0.96 |
| B13 | B13 | 0.96 |
| S14 | S14 | 0.96 |
| C15 | C15 | 0.96 |
| C-05 | Grade C-05 | 0.95 |
| A14 | A14 | 0.95 |
| S17 | S17 | 0.95 |
| C12 | C12 | 0.95 |
| C14 | C14 | 0.95 |
| C18 | C18 | 0.95 |
| D12 | D12 | 0.95 |
| D13 | D13 | 0.95 |
| D16 | D16 | 0.95 |
| D18 | D18 | 0.95 |
| D14 | D14 | 0.94 |
| D15 | D15 | 0.94 |
| D17 | D17 | 0.94 |
| C-10 | Grade C-10 | 0.90 |
| C-15 | Grade C-15 | 0.85 |
| D+10 | Grade D+10 | 0.80 |
| D+05 | Grade D+05 | 0.75 |
| D | Grade D | 0.70 |
| D-05 | Grade D-05 | 0.65 |
| D-10 | Grade D-10 | 0.60 |
| D-15 | Grade D-15 | 0.55 |
| E+10 | Grade E+10 | 0.50 |
| E+05 | Grade E+05 | 0.45 |
| E | Grade E | 0.40 |
| E-05 | Grade E-05 | 0.35 |
| E-10 | Grade E-10 | 0.30 |
| E-15 | Grade E-15 | 0.25 |

# CLASSIFICATION OF REAL AND TANGIBLE PERSONAL PROPERTY

**MANUFACTURED HOMES**

NC General Statute 105-273 includes in the definition of Real Property all land, buildings, structures, improvements, and permanent fixtures on land. Manufactured Homes are to be listed as real estate if they meet all three of the following conditions:

- The building is a residential structure
- The wheels, axles, and hitch ("tongue") have been removed
- The home has a permanent foundation, and is located on property owned by the same person or entity as the home. This condition may also be met if the owner of the home has a leasehold interest with a primary term of at least 20 years, and the lease makes provision for the disposition of the home at such time as the lease is terminated.

**REAL PROPERTY AND BUSINESS PERSONAL PROPERTY**

The following list is a guide to which improvements are typically classified as real property and which should be listed as Business Personal Property in accordance with North Carolina General Statute 105-274 and 105-275 (16). This list should not be considered comprehensive, and it serves only as a guideline. Final decisions may be made on a case-by-case basis, as needed. Care should be taken to ensure that improvements are not listed as both real and personal property in the same fiscal year. Property owners are encouraged to contact the Orange County Tax Office at 919-245-2100 for questions concerning classification of assets.

**Classification of Real and Tangible Personal Property**

| *Real* | *Personal* | *Asset* |
|---|---|---|
| XX | | Air Conditioning – Building |
| | XX | Air Conditioning – Manufacturing/Product |
| | XX | Air Conditioning – Window Units |
| | XX | Airplanes |
| | XX | Alarm Systems (Security) and Wiring |
| XX | | Alarm Systems (Fire) and Wiring – Required by Code |
| | XX | Asphalt Plants |
| | XX | ATM – All Equipment & Self-standing Booths |
| XX | | Auto Exhaust Systems for Building |
| | XX | Auto Exhaust Systems for Equipment |
| | XX | Awnings |
| | XX | Balers (Paper, Cardboard, etc.) |
| | XX | Bank Teller Counters – Service Area & Related |
| | XX | Bank Teller Lockers – Movable or Built-In |
| | XX | Bar and Bar Equipment – Movable or Built-In |
| XX | | Bulk Barns |
| | XX | Billboards |
| | XX | Boats & Motors – All |
| XX | | Boiler – For Service of Building |
| | XX | Boiler – Primarily for Process |
| | XX | Bookcases – Movable or Built-In |
| | XX | Bowling Alley Lanes |
| | XX | Broadcasting Equipment |
| XX | | Cabinets (Medical Office and Laboratories) |
| | XX | Cabinets (All Other) |
| | XX | Cable TV Distribution Systems |
| | XX | Cable TV Equipment & Wiring |
| | XX | Cable TV Subscriber Connections |
| | XX | Camera Equipment |
| | XX | Canopies – Fabric, Vinyl, Plastic |
| XX | | Canopies – Generally |
| XX | | Canopy Lighting |
| | XX | Car Wash – All Equipment, Filters, and Tanks |
| XX | | Carpet – Installed |
| | XX | Catwalks |
| | XX | Cement Plants |
| | XX | Chairs – All Types |

| *Real* | *Personal* | *Asset* |
|---|---|---|
| | XX | CIP Equipment |
| | XX | Closed Circuit TV |
| | XX | Cold Storage – Equipment, Rooms, Partitions |
| | XX | Compressed Air or Gas Systems (Other than Building Heat) |
| | XX | Computer Room A/C |
| | XX | Computer Room Raised Floor |
| | XX | Computer Scanning Equipment |
| | XX | Computer and Data Lines |
| | XX | Concrete Plants |
| | XX | Construction and Grading Equipment |
| | XX | Control Systems – Building & Equipment |
| | XX | Conveyor & Material Handling Systems |
| | XX | Coolers – Walk-In or Self-Standing |
| XX | | Cooling Towers – Primary Use for Building |
| | XX | Cooling Towers – Primary Use in Manufacturing |
| | XX | Counters/Reception Desks – Movable or Built-In |
| | XX | Dairy Processing Plants – All Process Items, Bins, Tanks |
| | XX | Dance Floors |
| | XX | Data Processing Equipment – All Items |
| | XX | Deli Equipment |
| | XX | Desks – All |
| | XX | Diagnostic Center Equipment – Movable or Built-In |
| | XX | Display Cases – Movable or Built-In |
| | XX | Dock Levelers |
| | XX | Drapes & Curtains, Blinds, Etc. |
| XX | | Drinking Fountains |
| | XX | Drive-Thru Windows – All |
| | XX | Drying Systems – Process or Product |
| | XX | Dumpsters |
| | XX | Dust Catchers, Control Systems, etc. |
| | XX | Electronic Control Systems |
| XX | | Elevators |
| XX | | Escalators |
| | XX | Farm Equipment – All |
| | XX | Fencing – Inside |
| XX | | Fencing – Outside |
| | XX | Flagpoles |
| | XX | Flooring – Raised, Padded, Special Purpose |
| | XX | Foundations for Machinery & Equipment |
| | XX | Freight Charges |
| | XX | Fuels – Not for Sale (List as Supplies) |
| | XX | Furnaces – Steel Mill Process, etc. |
| | XX | Furniture & Fixtures |
| XX | | Gazebos & Pergolas |

| *Real* | *Personal* | *Asset* |
|---|---|---|
| XX | | Golf Course & Improvements (Drainage/Irrigation) |
| | XX | Grain Bins/Feed Hoppers |
| XX | | Grain Bins (Storage) |
| XX | | Grease Traps |
| | XX | Greenhouse Benches, Heating System, etc. |
| XX | | Greenhouses – Structure if Permanently Affixed |
| | XX | Handrails – If Used for Dividing Areas or Decorative |
| | XX | Heating Systems – Process |
| | XX | Hoppers – Metal Bin Type |
| | XX | Hospital Systems, Equipment & Piping |
| | XX | Hot Air Balloons |
| | XX | Hotel/Motel – Televisions & Wiring, Movable Furnishings |
| | XX | Humidifiers – Process |
| | XX | Incinerators – Equipment and/or Movable |
| | XX | Industrial Piping – Process |
| | XX | Installation Cost |
| XX | | Irrigation Equipment – In-ground |
| | XX | Irrigation Equipment – Portable |
| | XX | Kiln Heating System |
| | XX | Kilns – Metal Tunnel or Movable |
| | XX | Laboratory Equipment |
| XX | | Lagoons/Settling Ponds |
| | XX | Laundry Bins |
| | XX | Law & Professional Libraries |
| | XX | Leased Equipment – Lessor or Lessee Possession |
| | | Leasehold Improvements (List in Detail Annually) |
| | XX | Lifts – Other than Elevator |
| | XX | Lighting – Portable, Movable, Special |
| XX | | Lighting – Yard Lighting, Canned Lighting |
| | XX | Machinery & Equipment |
| | XX | Medical Equipment |
| | XX | Mezzanines – For Parts or Storage (Metal Racking) |
| | XX | Milk Handling – Milking, Cooling, Piping, Storage |
| | XX | Millwork |
| XX | | Mineral Rights |
| | XX | Mirrors (Other than Bathroom) |
| | XX | Molds |
| | XX | Monitoring Systems – Building or Equipment |
| | XX | Newspaper Stands |
| | XX | Night Depository |
| | XX | Office Equipment – All |
| | XX | Office Supplies (List as Supplies) |
| | XX | Oil Company Equipment – Pumps, Supplies, etc. |
| | XX | Ovens – Processing/Manufacturing |

| *Real* | *Personal* | *Asset* |
|---|---|---|
| | XX | Overhead Conveyor System |
| | XX | Package & Labeling Equipment |
| | XX | Paging Systems |
| | XX | Paint Spray Booths |
| | | Painting – No Added Value |
| | XX | Partitions |
| XX | | Paving |
| | XX | Piping Systems – Process Piping |
| | XX | Playground Equipment – All |
| | XX | Pneumatic Tube Systems |
| | XX | Portable Buildings/Storage Sheds |
| | XX | Power Generator Systems (Auxiliary, Emergency, etc.) |
| | XX | Power Transformers – Equipment |
| | XX | Public Address Systems (Intercom, Music, etc.) |
| XX | | Railroad Sidings (Other than Railroad-owned) |
| | XX | Refrigeration Systems – Compressors, etc. |
| XX | | Repairs – Building |
| | XX | Repairs – Equipment (50% Cost) |
| | XX | Restaurant Furniture (Incl. Attached Floor or Building) |
| | XX | Restaurant/Kitchen Equip – Vent Hoods, Sinks, etc. (Commercial) |
| | XX | Returnable Containers |
| | XX | Roll-up Doors (Inside Wall) |
| XX | | Roll-up Doors (Outside Wall) |
| XX | | Roofing |
| | XX | Room Dividers/Partitions – Movable or Built-In |
| | XX | Rooms – Self-Contained or Special Purpose (Walls, Ceiling, Floor) |
| | XX | Safes – Wall or Self-Standing |
| | XX | Sales/Use Tax |
| | XX | Satellite Dishes (All Wiring & Installation to TV & Equipment) |
| XX | | Scale Houses (Unless Movable) |
| | XX | Scales |
| | XX | Security Systems |
| | XX | Service Station Equipment – Pumps, Tanks, Lifts, and Related |
| XX | | Sewer Systems |
| | XX | Sheds (Storage) |
| | XX | Shelving – Movable or Built-In |
| | XX | Signs – All Types Including Attached to Building |
| XX | | Silos |
| XX | | Sinks – Bathroom (Includes Medical & Dental Offices) |
| | XX | Sinks – Kitchen Area |
| | XX | Software – Purchased from Unrelated 3rd Party & Capitalized |
| | | Software – Custom & Modification Costs for Canned Software (Not Taxable) |
| XX | | Solar Equipment – Used to Heat & Cool Building |

| *Real* | *Personal* | *Asset* |
|---|---|---|
| | XX | Solar Equipment – Photovoltaic & Solar Thermal |
| | XX | Solar Farm – Electricity Generation |
| | XX | Sound Systems & Projection Equipment |
| | XX | Spare Parts – List as Supplies |
| | XX | Speakers – Built-In or Freestanding |
| | XX | Spray Booths |
| | XX | Sprinkler System – Attached to Product Storage Racks |
| XX | | Sprinkler System – Building/Fire Protection |
| | XX | Storage Buildings – Not on a Permanent Foundation |
| | XX | Supplies – Office & Other |
| XX | | Swimming Pool Filtration Equipment |
| | XX | Swimming Pool Heater Equipment |
| XX | | Swimming Pools |
| | XX | Tanks – All Above & Below Ground |
| | XX | Telephone Systems & Wiring – Private |
| | XX | Theatre Screens – Indoor |
| XX | | Theatre Screens – Outdoor |
| | XX | Tooling, Dies, Molds |
| | XX | Towers – Microwave, Equipment, Wiring, Foundation, Building & Fencing |
| | XX | Towers – TV, Radio, CATV, Two-Way Radio, Wiring & FDN |
| | | Towers – Cell Towers & Mobile Communications Equip Owned by Communication Co – State-Assessed |
| | XX | Trailers – Designed to be Pulled Behind Vehicle |
| | XX | Trailers – Office or House Type |
| | XX | Transportation Cost – All |
| XX | | Tunnels – Unless Part of Process System |
| | XX | Upgrades to Equipment |
| | XX | Vacuum System – Process |
| XX | | Vault |
| | XX | Vault Door, Inner Gates, Vents & Equipment |
| | XX | Vending Machines |
| | XX | Vent Fans |
| XX | | Ventilation Systems – General Building |
| | XX | Ventilation Systems – Needed for Manufacturing, Process |
| | XX | Video Tapes, Movies, Reel Movies |
| XX | | Wall Covering |
| | XX | Walls – Partitions, Movable & Room Dividers |
| | XX | Water Coolers – All |
| | XX | Water Lines – For Process Above or Below Ground |
| XX | | Water System – Residential or General Building |
| | XX | Water Tanks & System – For Process Equipment |
| XX | | Water Wells – If Used for Irrigation Only |
| | XX | Whirlpool, Jacuzzi, Hot Tubs |
| | XX | Wiring – Power Wiring for Machinery & Equipment |

# UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE (USPAP)

**Uniform Standards of Professional Appraisal Practice As promulgated by the Appraisal Standards Board of The Appraisal Foundation**

The purpose of the Uniform Standards of Professional Appraisal Practice (USPAP) is to promote and maintain a high level of public trust in appraisal practice by establishing requirements for appraisers. It is essential that appraisers develop and communicate their analyses, opinions, and conclusions to intended users of their services in a manner that is meaningful and not misleading.

The Appraisal Standards Board promulgates USPAP for both appraisers and users of appraisal services. The appraiser's responsibility is to protect the overall public trust and it is the importance of the role of the appraiser that places ethical obligations on those who serve in this capacity. USPAP reflects the current standards of the appraisal profession.

USPAP does not establish who or which assignments must comply. Neither The Appraisal Foundation nor its Appraisal Standards Board is a government entity with the power to make, judge, or enforce law. Compliance with USPAP is required when either the service or the appraiser is obligated to comply by law or regulation, or by agreement with the client or intended users. When not obligated, the individual may still choose to comply.

USPAP addresses the ethical and performance obligations of appraisers through Definitions, Rules, Standards, Standards Rules, and Statements.

- The ETHICS RULE sets forth the requirements for integrity, impartiality, objectivity, independent judgment, and ethical conduct.
- The RECORD KEEPING RULE establishes the work file requirements for appraisal, appraisal review, and appraisal consulting assignments.
- The COMPETENCY RULE presents pre-assignment and assignment conditions for knowledge and experience.
- The SCOPE OF WORK RULE presents obligations related to problem identification, research, and analyses.
- The JURISDICTIONAL EXCEPTION RULE preserves the balance of USPAP if a portion is contrary to law or public policy of a jurisdiction.
- The ten standards establish the requirements for appraisal, appraisal review, and appraisal consulting service and the manner in which each is communicated.
- STANDARDS 1and 2 establish requirements for the development and communication of a real property appraisal.
- STANDARD 3 establishes requirements for the development and communication of an appraisal review.
- STANDARDS 4 and 5 establish requirements for the development and communication of a real property appraisal consulting assignment.
- STANDARD 6 establishes requirements for the development and communication of mass appraisal.

- STANDARDS 7 and 8 establish requirements for the development and communication of a personal property appraisal.
- STANDARDS 9 and 10 establish requirements for the development and communication of a business or intangible asset appraisal
- Statements on Appraisal Standards clarify, interpret, explain, or elaborate on a Rule or Standards.
- Comments are an integral part of USPAP and have the same weight as the component they address. These extensions of the Definitions, Rules and Standard Rules provide interpretation and establish the context and conditions for application.

**STANDARD 6: MASS APPRAISAL, DEVELOPMENT AND REPORTING**

In developing a mass appraisal, an appraiser must be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce and communicate credible mass appraisals.

Comment: STANDARD 6 applies to all mass appraisals of real or personal property regardless of the purpose or use of such appraisals. STANDARD 6 is directed toward the substantive aspects of developing and communicating credible analyses, opinions, and conclusions in the mass appraisal of properties. Mass appraisals can be prepared with or without computer assistance. The reporting and jurisdictional exceptions applicable to public mass appraisals prepared for ad valorem taxation do not apply to mass appraisals prepared for other purposes.

A mass appraisal includes:

1) Identifying the properties to be appraised;
2) Defining market area of consistent behavior that applies to properties;
3) Identifying characteristics (supply and demand) that affect the creation of value in that market area;
4) Developing a model structure that reflects the relationship among the characteristics affecting value in the market area;
5) Calibrating the model structure to determine the contribution of the individual characteristics affecting value;
6) Applying the conclusions reflected in the model to the characteristics of the property or properties being appraised; and
7) Reviewing the mass appraisal results.

The JURISDICTIONAL EXCEPTION RULE may apply to several sections of STANDARD 6 because ad valorem tax administration is subject to various state, county, and municipal laws.

**Standards Rule 6-1**

In developing a mass appraisal, an appraiser must:

(a) Be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce a credible mass appraisal;

Comment: Mass appraisal provides for a systematic approach and uniform application of appraisal methods and techniques to obtain estimates of value that allow for statistical review and analysis of results.

This requirement recognizes that the principle of change continues to affect the manner in which appraisers perform mass appraisals. Changes and developments in the real property and personal property fields have a substantial impact on the appraisal profession.

To keep abreast of these changes and developments, the appraisal profession is constantly reviewing and revising the appraisal methods and techniques and devising new methods and techniques to meet

new circumstances. For this reason it is not sufficient for appraisers to simply maintain the skills and the knowledge they possess when they become appraisers. Each appraiser must continuously improve his or her skills to remain proficient.

(b) Not commit a substantial error of omission or commission that significantly affects a mass appraisal; and

Comment: An appraiser must use sufficient care to avoid errors that would significantly affect his or her opinions and conclusions. Diligence is required to identify and analyze the factors, conditions, data, and other information that would have a significant effect on the credibility of the assignment results.

(c) Not render a mass appraisal in a careless or negligent manner.

Comment: Perfection is impossible to attain, and competence does not require perfection. However, an appraiser must not render appraisal services in a careless or negligent manner. This Standards Rule requires an appraiser to use due diligence and due care.

Standards Rule 6-2

In developing a mass appraisal, an appraiser must:

(a) Identify the client and other intended users;

(b) Identify the intended use of the appraisal;

Comment: An appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased.

(c) Identify the type and definition of value, and, if the value opinion to be developed is market value, ascertain whether the value is to be the most probable price:

i. In terms of cash; or

ii. In terms of financial arrangements equivalent to cash; or iii. In such other terms as may be precisely defined; and

iii. If the opinion of value is based on non-market financing or financing with unusual conditions or incentives, the terms of such financing must be clearly identified and the appraiser's opinion of their contributions to or negative influence on value must be developed by analysis of relevant market data;

Comment: For certain types of appraisal assignments in which a legal definition of market value has been established and takes precedence, the JURISDICTIONAL EXCEPTION RULE may apply.

(d) Identify the effective date of the appraisal

(e) Identify the characteristics of the properties that are relevant to the type and definition of value and intended use, including:

i. The group with which a property is identified according to similar market influence;

ii. The appropriate market area and time frame relative to the property being valued; and
iii. Their location and physical, legal, and economic characteristics.

Comment: The properties must be identified in general terms, and each individual property in the universe must be identified, with the information on its identity stored or referenced in its property record. When appraising proposed improvements, an appraiser must examine and have available for future examination, plans, specifications, or other documentation sufficient to identify the extent and character of the proposed improvements.

Ordinarily, proposed improvements are not appraised for ad valorem tax. Appraisers, however, are sometimes asked to provide opinions of value of proposed improvements so that developers can estimate future property tax burdens.

(f) Identify the characteristics of the market that are relevant to the purpose and intended use of the mass appraisal, including:
   i. Location of the market area;
   ii. Physical, legal, and economic attributes;
   iii. Time frame of market activity; and
   iv. Property interests reflected in the market;

(g) In appraising real property or personal property:
   i. Identify the appropriate market area and time frame relative to the property being valued;
   ii. When the subject is real property, identify and consider any personal property, trade fixtures, or intangibles that are not real property but are included in the appraisal;
   iii. When the subject is personal property, identify and consider any real property or intangibles that are not personal property but are included in the appraisal;
   iv. Identify known easements, restrictions, encumbrances, leases, reservations, covenants, contracts, declarations, special assessments, ordinances, or other items of similar nature; and
   v. Identify and analyze whether an appraised fractional interest, physical segment or partial holding contributes pro rata to the value of the whole;

Comment: The above requirements do not obligate the appraiser to value the whole when the subject of the appraisal is a fractional interest, physical segment, or a partial holding. However, if the value of the whole is not identified, the appraisal must clearly reflect that the value of the property being appraised cannot be used to develop the value opinion of the whole by mathematical extension.

(h) Analyze the relevant economic conditions at the time of the valuation, including market acceptability of the property and supply, demand, scarcity, or rarity;

(i) Identify any extraordinary assumptions and any hypothetical conditions necessary in the assignment; and

Comment: An extraordinary assumption may be used in an assignment only if:

- It is required to properly develop credible opinions and conclusions;

- The appraiser has a reasonable basis for the extraordinary assumption;
- The use of the extraordinary assumption results in a credible analysis; and
- The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

(j) Determine the scope of work necessary to produce credible assignment results in accordance with the SCOPE OF WORK RULE.

**Standards Rule 6-3**

When necessary for credible assignment results, an appraiser must:

(a) In appraising real property, identify and analyze the effect on use and value of the following factors: existing land use regulations, reasonably probable modifications of such regulations, economic supply and demand, the physical adaptability of the real estate, neighborhood trends, and highest and best use of the real estate; and

Comment: This requirement sets forth a list of factors that affect use and value. In considering neighborhood trends, an appraiser must avoid stereotyped or biased assumptions relating to race, age, color, gender, or national origin or an assumption that race, ethnic, or religious homogeneity is necessary to maximize value in a neighborhood. Further, an appraiser must avoid making an unsupported assumption or premise about neighborhood decline, effective age, and remaining life. In considering highest and best use, an appraiser must develop the concept to the extent required for a proper solution to the appraisal problem.

(b) In appraising personal property: identify and analyze the effects on use and value of industry trends, value-in-use, and trade level of personal property. Where applicable, analyze the current use and alternative uses to encompass what is profitable, legal, and physically possible, as relevant to the type and definition of value and intended use of the appraisal. Personal property has several measurable marketplaces; therefore, the appraiser must define and analyze the appropriate market consistent with the type and definition of value.

Comment: The appraiser must recognize that there are distinct levels of trade and each may generate its own data. For example, a property may have a different value at a wholesale level of trade, a retail level of trade, or under various auction conditions. Therefore, the appraiser must analyze the subject property within the correct market context.

**Standards Rule 6-4**

In developing a mass appraisal, an appraiser must:

(a) Identify the appropriate procedures and market information required to perform the appraisal, including all physical, functional, and external market factors as they may affect the appraisal;

Comment: Such efforts customarily include the development of standardized data collection forms, procedures, and training materials that are used uniformly on the universe of properties under consideration.

(b) Employ recognized techniques for specifying property valuation models; and

Comment: The formal development of a model in a statement or equation is called model specification. Mass appraisers must develop mathematical models that, with reasonable accuracy, represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. The models may be specified using the cost, sales comparison, or income approaches to value. The specification format may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics. Appropriate approaches must be used in appraising a class of properties. The concept of recognized techniques applies to both real and personal property valuation models.

(c) Employ recognized techniques for calibrating mass appraisal models.

Comment: Calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model. The table entries in a cost manual are examples of calibrated parameters, as well as the coefficients in a linear or nonlinear model. Models must be calibrated using recognized techniques, including, but not limited to, multiple linear regression, nonlinear regression, and adaptive estimation.

**Standards Rule 6-5**

In developing a mass appraisal, when necessary for credible assignment results, an appraiser must:

(a) Collect, verify, and analyze such data as are necessary and appropriate to develop:
   i. The cost new of the improvements;
   ii. Accrued depreciation;
   iii. Value of the land by sales of comparable properties;
   iv. Value of the property by sales of comparable properties;Value by capitalization of income or potential earnings – i.e., rentals, expenses, interest rates, capitalization rates, and vacancy data;

Comment: This Standards Rule requires appraisers engaged in mass appraisal to take reasonable steps to ensure that the quantity and quality of the factual data that are collected are sufficient to produce credible appraisals. For example, in real property, where applicable and feasible, systems for routinely collecting and maintaining ownership, geographic, sales, income and expense, cost, and property characteristics data must be established. Geographic data must be contained in as complete a set of cadastral maps as possible, compiled according to current standards of detail and accuracy. Sales data must be collected, confirmed, screened, adjusted, and filed according to current standards of practice. The sales file must contain, for each sale, property characteristics data that are contemporaneous with the date of sale. Property characteristics data must be appropriate and relevant to the mass appraisal

models being used. The property characteristics data file must contain data contemporaneous with the date of appraisal including historical data on sales, where appropriate and available. The data collection program must incorporate a quality control program, including checks and audits of the data to ensure current and consistent records.

(b) Base estimates of capitalization rates and projections of future rental rates and/or potential earnings capacity, expenses, interest rates, and vacancy rates on reasonable and appropriate evidence;

Comment: This requirement calls for an appraiser, in developing income and expense statements and cash flow projections, to weight historical information and trends, current market factors affecting such trends, and reasonably anticipated events, such as competition from developments either planned or under construction.

(c) Identify and, as applicable, analyze terms and conditions of any available leases; and
(d) Identify the need for and extent of any physical inspection.

**Standards Rule 6-6**
When necessary for credible assignment results in applying a calibrated mass appraisal model an appraiser must:

(a) Value improved parcels by recognized methods or techniques based on the cost approach, the sales comparison approach, and the income approach;
(b) Value sites by recognized methods or techniques; such techniques include but are not limited to the sales comparison approach, allocation method, abstraction method, capitalization of ground rent, and land residual technique;
(c) When developing the value of a leased fee estate or a leasehold estate, analyze the effect on value, if any, of the terms and conditions of the lease;

Comment: In ad valorem taxation the appraiser may be required by rules or law to appraise the property as if in fee simple, as though unencumbered by existing leases. In such cases, market rent would be used in the appraisal, ignoring the effect of the individual, actual contract rents.

(d) Analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, or component parts of a property; the value of the whole must not be developed by adding together the individual values of the various parcels, divided interests, or component parts; and

Comment: When the value of the whole has been established and the appraiser seeks to value a part, the value of any such part must be tested by reference to appropriate market data and supported by an appropriate analysis of such data.

(e) When analyzing anticipated public or private improvements, located on or off the site, analyze the effect on value, if any, of such anticipated improvements to the extent they are reflected in

market actions.

**Standards Rule 6-7**

In reconciling a mass appraisal, an appraiser must:

(a) Reconcile the quality and quantity of data available and analyzed within the approaches used and the applicability and relevance of the approaches, methods, and techniques used; and

(b) Employ recognized mass appraisal testing procedures and techniques to ensure that standards of accuracy are maintained.

Comment: It is implicit in mass appraisal that, even when properly specified and calibrated mass appraisal models are used, some individual value conclusions will not meet standards of reasonableness, consistency, and accuracy. However, appraisers engaged in mass appraisal have a professional responsibility to ensure that, on an overall basis, models produce value conclusions that meet attainable standards of accuracy. This responsibility requires appraisers to evaluate the performance of models, using techniques that may include but are not limited to, goodness-of-fit statistics, and model performance statistics such as appraisal-to-sale ratio studies, evaluation of hold-out samples, or analysis of residuals.

**Standards Rule 6-8**

A written report of a mass appraisal must clearly communicate the elements, results, opinions, and value conclusions of the appraisal.

Each written report of a mass appraisal must:

(a) Clearly and accurately set forth the appraisal in a manner that will not be misleading;

(b) Contain sufficient information to enable the intended users of the appraisal to understand the report properly;

Comment: Documentation for a mass appraisal for ad valorem taxation may be in the form of:

1. Property records
2. Sales ratios and other statistical studies
3. Appraisal manuals and documentation
4. Market studies
5. Model building documentation
6. Regulations
7. Statutes
8. Other acceptable forms.

(c) Clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical conditions, and limiting conditions used in the assignment;

Comment: The report must clearly and conspicuously:

- State all extraordinary assumptions and hypothetical conditions; and
- State that their use might have affected the assignment results.

(d) State the identity of the client and any intended users, by name or type;

(e) State the intended use of the appraisal;

(f) Disclose any assumptions or limiting conditions that result in deviation from recognized methods and techniques or that affect analyses, opinions, and conclusions;

(g) Set forth the effective date of the appraisal and the date of the report;

Comment: In ad valorem taxation the effective date of the appraisal may be prescribed by law. If no effective date is prescribed by law, the effective date of the appraisal, if not stated, is presumed to be contemporaneous with the data and appraisal conclusions.

The effective date of the appraisal establishes the context for the value opinion, while the date of the report indicates whether the perspective of the appraiser on the market and property as of the effective date of the appraisal was prospective, current, or retrospective.

(h) State the type and definition of value and cite the source of the definition;

Comment: Stating the type and definition of value also requires any comments needed to clearly indicate to intended users how the definition is being applied.

When reporting an opinion of market value, state whether the opinion of value is:

- In terms of cash or of financing terms equivalent to cash; or
- Based on non-market financing with unusual conditions or incentives.

When an opinion of market value is not in terms of cash or based on financing terms equivalent to cash, summarize the terms of such financing and explain their contributions to or negative influence on value.

(i) Identify the properties appraised including the property rights;

Comment: The report documents the sources for location, describing and listing the property. When applicable, include references to legal descriptions, addresses, parcel identifiers, photos, and building sketches. In mass appraisal, this information is often included in property records. When the property rights to be appraised are specified in a statute or court ruling, the law must be referenced.

(j) Describe the scope of work used to develop the appraisal; exclusion of the sales comparison approach, cost approach, or income approach must be explained;

Comment: Because intended users' reliance on appraisal may be affected by the scope of work, the report must enable them to be properly informed and not misled. Sufficient information includes disclosure of research and analyses performed and might also include disclosure of research and

analyses not performed.

When any portion of the work involves significant mass appraisal assistance, the appraiser must describe the extent of that assistance. The signing appraiser must also state the name(s) of those providing significant mass appraisal assistance in the certification.

(k) Describe and justify the model specification(s) considered, data requirements, and the model(s) chosen;

Comment: The appraiser must provide sufficient information to enable the client and intended users to have confidence that the process and procedures used conform to accepted methods and result in credible value conclusions. In the case of mass appraisal for ad valorem taxation, stability and accuracy are important to the credibility of value opinions. The report must include a discussion of the rationale for each model, the calibration techniques to be used, and the performance measures to be used.

(l) Describe the procedure for collecting, validating, and reporting data;

Comment: The report must describe the sources of data and the data collection and validation processes. Reference to detailed data collection manuals must be made, as appropriate, including where they may be found for inspection.

(m) Describe calibration methods considered and chosen, including the mathematical form of the final model(s); describe how value conclusions were reviewed; and, if necessary, describe the availability of individual value conclusions;
(n) When an opinion of highest and best use, or the appropriate market or market level was developed, discuss how that opinion was determined;

Comment: The mass appraisal report must reference case law, statute, or public policy that describes highest and best use requirements. When actual use is the requirement, the report must discuss how use-value opinions were developed. The appraiser's reasoning in support of the highest and best use opinion must be provided in the depth and detail required by its significance to the appraisal.

(o) Identify the appraisal performance tests used and set forth the performance measures attained;
(p) Describe the reconciliation performed, in accordance with Standards Rule 6-7; and
(q) Include a signed certification in accordance with Standards Rule 6-9.

**Standards Rule 6-9**
Each written mass appraisal report must contain a signed certification that is similar in content to the following form:

I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- I have no (or the specified) present or prospective interest in the property that is the subject of this report, and I have no (or the specified) personal interest with respect to the parties involved.
- I have performed no (or the specified) services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- My compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, or the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.
- I have (or have not) made a personal inspection of the properties that are the subject of this report. (If more than one person signs the report, this certification must clearly specify which individuals did and did not make a personal inspection of the subject property).
- No one provided significant mass appraisal assistance to the person signing this certification. (If there are exceptions, the name of each individual providing significant mass appraisal assistance must be stated).

Comment: The above certification is not intended to disturb an elected or appointed assessor's work plans or oaths of office. A signed certification is an integral part of the appraisal report. An appraiser, who signs any part of the mass appraisal report, including a letter of transmittal, must also sign this certification.

In an assignment that includes on assignment results developed by the real property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes personal property assignment results not developed by the real property appraiser(s), any real property appraiser(s) who signs a certification accepts full responsibility for the real property elements of the certification, real property assignment results, and real property contents of the appraisal report.

In an assignment that includes only assignment results developed by the personal property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes

real property assignment results not developed by the personal property appraiser(s), any personal property appraiser(s) who signs a certification accepts full responsibility for the personal property elements of the certification, for the personal property assignment results, and for the personal property contents of the appraisal report.

When a signing appraiser(s) has relied on work done by appraisers and others who do not sign the certification, the signing appraiser is responsible for the decision to rely on their work. The signing appraiser(s) is required to have a reasonable basis for believing that those individuals performing the work are competent. The signing appraiser(s) also must have no reason to doubt that the work of those individuals is credible.

The names of individuals providing significant mass appraisal assistance who do not sign a certification must be stated in the certification. It is not required that the description of their assistance be contained in the certification, but disclosure of their assistance is required in accordance with Standards Rule 6-8(j).

# NORTH CAROLINA GENERAL STATUTES

**Standards for Appraisal and Assessment.**

Sec.

§ 105-283. Uniform appraisal standards.

§ 105-284. Uniform assessment standard.

**§ 105-283. Uniform appraisal standards.**

All property, real and personal, shall as far as practicable be appraised or valued at its true value in money. When used in this Subchapter, the words "true value" shall be interpreted as meaning market value, that is, the price estimated in terms of money at which the property would change hands between a willing and financially able buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of all the uses to which the property is adapted and for which it is capable of being used. For the purposes of this section, the acquisition of an interest in land by an entity having the power of eminent domain with respect to the interest acquired shall not be considered competent evidence of the true value in money of comparable land. (1939, c. 310, s. 500; 1953, c. 970, s. 5; 1955, c. 1100, s. 2; 1959, c. 682; 1967, c. 892, s. 7; 1969, c. 945, s. 1; 1971, c. 806, s. 1; 1973, c. 695, s. 11; 1977, 2nd Sess., c. 1297.)

**§ 105-284. Uniform assessment standard.**

(a) Except as otherwise provided in this section, all property, real and personal, shall be assessed for taxation at its true value or use value as determined under G.S. 105-283 or G.S. 105-277.6, and taxes levied by all counties and municipalities shall be levied uniformly on assessments determined in accordance with this section.

(b) The assessed value of public service company system property subject to appraisal by the Department of Revenue under G.S. 105-335(b)(1) shall be determined by applying to the allocation of such value to each county a percentage to be established by the Department of Revenue. The percentage to be applied shall be either:

(1) The median ratio established in sales assessment ratio studies of real property conducted by the Department of Revenue in the county in the year the county conducts a reappraisal of real property and in the fourth and seventh years thereafter; or (2) A weighted average percentage based on the median ratio for real property established by the Department of Revenue as provided in subdivision (1) and a one hundred percent (100%) ratio for personal property. No percentage shall be applied in a year in which the median ratio for real property is ninety percent (90%) or greater.

If the median ratio for real property in any county is below ninety percent (90%) and if the county assessor has provided information satisfactory to the Department of Revenue that the county follows accepted guidelines and practices in the assessment of business personal property, the weighted average percentage shall be applied to public service company property. In calculating the weighted average percentage, the Department shall use the assessed value figures for real and personal property reported by the county to the Local Government Commission for the preceding year. In any county which fails to demonstrate that it follows accepted guidelines and practices, the percentage to be applied shall be the median ratio for real property. The percentage established in a year in which a sales assessment ratio study is conducted shall continue to be applied until another study is conducted by the Department of Revenue.

(c) Notice of the median ratio and the percentage to be applied for each county shall be given by the Department of Revenue to the chairman of the board of commissioners not later than April 15 of the year for which it is to be effective. Notice shall also be given at the same time to the public service companies whose property values are subject to adjustment under this section. Either the county or an affected public service company may challenge the real property ratio or the percentage established by the Department of Revenue by giving notice of exception within 30 days after the mailing of the Department's notice. Upon receipt of such notice of exception, the Department shall arrange a conference with the challenging party or parties to review the matter. Following the conference, the Department shall notify the challenging party or parties of its final determination in the matter. Either party may appeal the Department's determination to the Property Tax Commission by giving notice of appeal within 30 days after the mailing of the Department's decision. (1939, c. 310, s. 500; 1953, c. 970, s. 5; 1955, c. 1100, s. 2; 1959, c. 682; 1967, c. 892, s. 7; 1969, c. 945, s. 1; 1971, c. 806, s. 1; 1973, c. 695, s. 12; 1985, c. 601, s. 1; 1987 (Reg. Sess., 1988), c. 1052, s. 1.)

**§ 105-286. Time for general reappraisal of real property.**

(a) Octennial Plan.--Unless the date shall be advanced as provided in subdivision (a)(2), below, each county of the State, as of January 1 of the year prescribed in the schedule set out in subdivision (a)(1), below, and every eighth year thereafter, shall reappraise all real property in accordance with the provisions of G.S. 105-283 and 105-317.M

(1) Schedule of Initial Reappraisals.--

Division One--1972: Avery, Camden, Cherokee, Cleveland, Cumberland, Guilford, Harnett, Haywood, Lee, Montgomery, Northampton, and Robeson.

Division Two--1973: Caldwell, Carteret, Columbus, Currituck, Davidson, Gaston, Greene, Hyde, Lenoir, Madison, Orange,

Pamlico, Pitt, Richmond, Swain, Transylvania, and Washington.

Division Three--1974: Ashe, Buncombe, Chowan, Franklin, Henderson, Hoke, Jones, Pasquotank, Rowan, and Stokes. Division Four--1975: Alleghany, Bladen, Brunswick, Cabarrus, Catawba, Dare, Halifax, Macon, New Hanover, Surry, Tyrrell, and Yadkin.

Division Five--1976: Bertie, Caswell, Forsyth, Iredell, Jackson, Lincoln, Onslow, Person, Perquimans, Rutherford, Union, Vance, Wake, Wilson, and Yancey.

Division Six--1977: Alamance, Durham, Edgecombe, Gates, Martin, Mitchell, Nash, Polk, Randolph, Stanly, Warren, and Wilkes.

Division Seven--1978: Alexander, Anson, Beaufort, Clay, Craven, Davie, Duplin, and Granville.

Division Eight--1979: Burke, Chatham, Graham, Hertford, Johnston, McDowell, Mecklenburg, Moore, Pender, Rockingham, Sampson, Scotland, Watauga, and Wayne.

(2) Advancing Scheduled Octennial Reappraisal.--Any county desiring to conduct a reappraisal of real property earlier than required by this subsection (a) may do so upon adoption by the board of county commissioners of a resolution so providing. A copy of any such resolution shall be forwarded promptly to the Department of Revenue. If the scheduled date for reappraisal for any county is advanced as provided herein, real property in that county shall thereafter be reappraised every eighth year following the advanced date unless, in accordance with the provisions of this subdivision (a)(2), an earlier date

shall be adopted by resolution of the board of county commissioners, in which event a new schedule of octennial reappraisals shall thereby be established for that county.

(b) Fourth-Year Horizontal Adjustments.--As of January 1 of the fourth year following a reappraisal of real property conducted under the provisions of subsection (a), above, each county shall review the appraised values of all real property and determine whether changes should be made to bring those values into line with then current true value. If it is determined that the appraised value of all real property or of defined types or categories of real property require such adjustment, the assessor shall revise the values accordingly by horizontal adjustments rather than by actual appraisal of individual properties: That is, by uniform application of percentages of increase or reduction to the appraised values of properties within defined types or categories or within defined geographic areas of the county.

(c) Value to Be Assigned Real Property When Not Subject to Appraisal.--In years in which real property within a county is not subject to appraisal or reappraisal under subsections (a) or (b), above, or under G.S. 105-287, it shall be listed at the value assigned when last appraised under this section or under G.S. 105-287. (1939, c. 310, s. 300; 1941, c. 282, ss. 1, 11/2; 1943, c. 634, s. 1; 1945, c. 5; 1947, c. 50; 1949, c. 109; 1951, c. 847; 1953, c. 395; 1955, c. 1273; 1957, c. 1453, s. 1; 1959, c. 704, s. 1; 1971, c. 806, s. 1; 1973, c. 476, s. 193; 1987, c. 45, s. 1.)

**§ 105-317. Appraisal of real property; adoption of schedules, standards, and rules.** (a) Whenever any real property is appraised it shall be the duty of the persons making appraisals:

(1) In determining the true value of land, to consider as to each tract, parcel, or lot separately listed at least its advantages and disadvantages as to location; zoning; quality of soil; waterpower; water privileges; dedication as a nature preserve; mineral, quarry, or other valuable deposits; fertility; adaptability for agricultural, timber-producing, commercial, industrial, or other uses; past income; probable future income; and any other factors that may affect its value except growing crops of a seasonal or annual nature.

(2) In determining the true value of a building or other improvement, to consider at least its location; type of construction; age; replacement cost; cost; adaptability for residence, commercial, industrial, or other uses; past income; probable future income; and any other factors that may affect its value.

(3) To appraise partially completed buildings in accordance with the degree of completion on January 1.

(b) In preparation for each revaluation of real property required by G.S. 105-286, it shall be the duty of the assessor to see that: (1) Uniform schedules of values, standards, and rules to be used in appraising real property at its true value and at its present use value are prepared and are sufficiently detailed to enable those making appraisals to adhere to them in appraising real property.

(2) Repealed by Session Laws 1981, c. 678, s. 1.

(3) A separate property record be prepared for each tract, parcel, lot, or group of contiguous lots, which record shall show the information required for compliance with the provisions of G.S. 105-309 insofar as they deal with real property, as well as that required by this section. (The purpose of this subdivision is to require that individual property records be maintained in sufficient detail to enable property owners to ascertain the method, rules, and standards of value by which property is appraised.)

(4) The property characteristics considered in appraising each lot, parcel, tract, building, structure and improvement, in accordance with the schedules of values, standards, and rules, be accurately recorded on the appropriate property record.

(5) Upon the request of the owner, the board of equalization and review, or the board of county commissioners, any particular lot, parcel, tract, building, structure or improvement be actually visited and observed to verify the accuracy of property characteristics on record for that property.

(6) Each lot, parcel, tract, building, structure and improvement be separately appraised by a competent appraiser, either one appointed under the provisions of G.S. 105-296 or one employed under the provisions of G.S. 105-299.

(7) Notice is given in writing to the owner that he is entitled to have an actual visitation and observation of his property to verify the accuracy of property characteristics on record for that property.

(c) The values, standards, and rules required by subdivision (b)(1) shall be reviewed and approved by the board of county commissioners before January 1 of the year they are applied. The board of county commissioners may approve the schedules of values, standards, and rules to be used in appraising real property at its true value and at its present-use value either separately or simultaneously. Notice of the receipt and adoption by the board of county commissioners of either or both the true value and present-use value schedules, standards, and rules, and notice of a property owner's right to comment on and contest the schedules, standards, and rules shall be given as follows:

(1) The assessor shall submit the proposed schedules, standards, and rules to the board of county commissioners not less than 21 days before the meeting at which they will be considered by the board. On the same day that they are submitted to the board for its consideration, the assessor shall file a copy of the proposed schedules, standards, and rules in his office where they shall remain available for public inspection.

(2) Upon receipt of the proposed schedules, standards, and rules, the board of commissioners shall publish a statement in a newspaper having general circulation in the county stating:

a. That the proposed schedules, standards, and rules to be used in appraising real property in the county have been submitted to the board of county commissioners and are available for public inspection in the assessor's office; and

b. The time and place of a public hearing on the proposed schedules, standards, and rules that shall be held by the board of county commissioners at least seven days before adopting the final schedules, standards, and rules.

(3) When the board of county commissioners approves the final schedules, standards, and rules, it shall issue an order adopting them. Notice of this order shall be published once a week for four successive weeks in a newspaper having general circulation in the county, with the last publication being not less than seven days before the last day for challenging the validity of the schedules, standards, and rules by appeal to the Property Tax Commission. The notice shall state:

a. That the schedules, standards, and rules to be used in the next scheduled reappraisal of real property in the county have been adopted and are open to examination in the office of the assessor; and

b. That a property owner who asserts that the schedules, standards, and rules are invalid may except to the order and appeal therefrom to the Property Tax Commission within 30 days of the date when the notice of the order adopting the schedules, standards, and rules was first published.

(d) Before the board of county commissioners adopts the schedules of values, standards, and rules, the assessor may collect data needed to apply the schedules, standards, and rules to each parcel in the county. (1939, c. 310, s. 501; 1959, c. 704, s . 4; 1967, c. 944; 1971, c. 806, s. 1; 1973, c. 476, s. 193; c. 695, s. 5; 1981, c. 224; c. 678, s. 1; 1985, c. 216, s. 2; c. 628, s. 4; 1987, c. 45, s. 1; c. 295, s. 1.)

**§ 105-277.16. Taxation of low-income housing property.**

A North Carolina low-income housing development to which the North Carolina Housing Finance Agency allocated a federal tax credit under section 42 of the Code is designated a special class of property under Article V, Section 2(2) of the North Carolina Constitution and must be appraised, assessed, and taxed in accordance with this section. The assessor must use the income approach as the method of valuation for property classified under this section and must take rent restrictions that apply to the property into consideration in determining the income attributable to the property. The assessor may not consider income tax credits received under section 42 of the Code or under G.S. 105-129.42 in determining the income attributable to the property.